

MASS.
DOCS.
COLL.

*

UMASS/AMHERST

*



312066 0278 0816 9



Northampton Public Library.

Shelf..... No..... Vol.....

REGULATIONS.

This Book must not be taken from the Building.

Extract from the General Statutes of Massachusetts :

"Whoever wilfully and maliciously writes upon, injures, defaces, tears or destroys, any book, plate, picture, engraving or statue belonging to any law, town, city or other public library, shall be punished by a fine of not less than five dollars, nor more than one thousand dollars for every such offence."


1990

FIFTY-THIRD ANNUAL REPORT
OF THE
BOARD OF EDUCATION:
TOGETHER WITH THE
FIFTY-THIRD ANNUAL REPORT
OF THE
SECRETARY OF THE BOARD,
1888-89.

JANUARY, 1890.

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1890.

NORTHAMPTON, Mass.
PUBLIC LIBRARY.



Digitized by the Internet Archive
in 2009 with funding from
Boston Library Consortium Member Libraries

CONTENTS.

	PAGE
I.—REPORT OF BOARD OF EDUCATION,	9-16
II.—REPORTS OF VISITORS OF THE NORMAL SCHOOLS,	18-47
Bridgewater,	18
Framingham,	26
Salem,	31
Westfield,	33
Worcester,	40
Normal Art School,	44
III.—SECRETARY'S REPORT,	51
Summary of Statistics,	51
School Attendance,	53
Teachers,	60
High Schools,	64
Length of Schools,	65
Evening Schools,	65
Amount Expended for Schools,	67
Special Schools,	69
American Asylum,	69
Clarke Institution,	73
Horace Mann School,	77
Perkins Institution for the Blind,	80
Income of Massachusetts School Fund,	82
Normal Schools,	83
History of Normal Schools,	83
Establishment of Normal Schools,	84
Normal Schools in Massachusetts,	86
Lexington-Framingham School,	91
Barre-Westfield School,	113
Bridgewater School,	130
Salem School,	143
Worcester School,	152
Normal Art School,	169
State Teachers' Institutes,	177
Teachers' Institutes for 1889,	184
Agents of the Board,	189
School Superintendence,	191
Duties of Superintendents,	197
Course of Studies for Grammar Schools,	206
Normal Schools,	215
Truant Schools,	217
Elements of Physical Science,	217
Physical Training,	218
The State and the Schools,	218

	PAGE
IV.—FINANCIAL STATEMENT,	225
V.—REPORT OF GEORGE A. WALTON, AGENT OF THE BOARD,	234
VI.—REPORT OF GEORGE H. MARTIN, AGENT OF THE BOARD,	247
VII.—REPORT OF JOHN T. PRINCE, AGENT OF THE BOARD,	263
VIII.—REPORT OF A. W. EDSON, AGENT OF THE BOARD,	289
IX.—REPORT OF G. T. FLETCHER, AGENT OF THE BOARD,	303
X.—REPORT OF HENRY T. BAILEY, AGENT OF THE BOARD,	317
XI.—OUTLINE OF A COURSE IN DRAWING FOR THE PUBLIC SCHOOLS, .	337
XII.—ABSTRACT OF SCHOOL RETURNS,	i-cxxxiv
XIII.—INDEX,	cxxxvii

STATE BOARD OF EDUCATION, 1890.

EX OFFICIO.

HIS EXCELLENCY JOHN Q. A. BRACKETT, *Governor.*
HIS HONOR WILLIAM H. HAILE, *Lieutenant-Governor.*

BY APPOINTMENT.

FRANCIS A. WALKER, . . .	<i>Boston,</i> . . .	May 25, 1890.
ELMER H. CAPEN, . . .	<i>Somerville,</i> . . .	May 25, 1891.
ELIJAH B. STODDARD, . . .	<i>Worcester,</i> . . .	May 25, 1892.
ALONZO A. MINER, . . .	<i>Boston,</i> . . .	May 25, 1893.
ALICE FREEMAN PALMER, . . .	<i>Cambridge,</i> . . .	May 25, 1894.
ADMIRAL P. STONE, . . .	<i>Springfield,</i> . . .	May 25, 1895.
KATE GANNETT WELLS, . . .	<i>Boston,</i> . . .	May 25, 1896.
MILTON B. WHITNEY, . . .	<i>Westfield,</i> . . .	May 25, 1897.

SECRETARY.

JOHN W. DICKINSON, *Newton.*

ASSISTANT SECRETARY AND TREASURER.

C. B. TILLINGHAST, *Boston.*

AGENTS.

GEORGE A. WALTON,	<i>West Newton.</i>
GEORGE H. MARTIN,	<i>Bridgewater.</i>
JOHN T. PRINCE,	<i>Newtonville.</i>
ANDREW W. EDSON,	<i>Worcester.</i>
G. T. FLETCHER,	<i>Northampton.</i>
HENRY T. BAILEY,	<i>North Scituate.</i>

ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

ANNUAL REPORT.

The Board of Education respectfully submits to the Legislature its Fifty-third Annual Report.

The public schools of the Commonwealth have had a prosperous year. This appears from the amount of money appropriated for their support, from the average number of months of the year they have been continued, and from the attendance of the school children upon their exercises. The printed abstract of the school returns, received from every town in the State, and a summary of the statistics, will be found in the report of the secretary of the Board.

As the Board is not invested with any specific power of control or supervision of the public schools, it cannot affect directly their organization or their modes of instruction. It may, however, exert an indirect influence over both, through its authority to obtain information of the condition of the schools; through its annual reports to the Legislature, in which may be found the facts which furnish the basis of all school legislation; and through its agents, who are appointed to co-operate with teachers and school boards in promoting the interests of the public schools.

NORMAL SCHOOLS.

There are six normal schools in the Commonwealth, with an attendance for the year of 1,352 pupils, the largest number for any year in the history of these institutions. The schools are crowded with students; and their graduates find ready employment as soon as their normal course of studies has been completed. The normal schools owe their origin to the idea that teaching is a science and an art, and that both may be acquired, as are any other science and art. The study of the science and art of teaching is the special work of the normal schools. That they may direct their attention as fully as possible to professional instruction, the standard for the admission of candidates

to the normal classes should be immediately or gradually raised, so as to render simple academical study no longer necessary in them. Of the 8,753 teachers in the State, 3,373 have received a professional training. This large number of educated teachers have not only introduced improved methods of teaching into their own schools, but by their example they have modified the methods of all other schools with which they may be in any way associated.

The Commonwealth has appropriated money for erecting and furnishing three new normal school-houses, — one at Framingham, to be ready for occupancy in February next; one at Bridgewater and one at Westfield, to be completed within two years from the beginning of the present school year. These buildings are to be constructed in accordance with the most approved plans, and are to contain well-furnished apartments for the normal classes, and for schools of practice, composed of all grades of pupils, from the kindergarten to the high school.

Much information regarding these buildings will be found in the reports of the several boards of visitors following.

PUBLIC SCHOOLS.

By the latest returns it appears that the number of persons in the State between the ages of five and fifteen is 367,785. The number of all ages in the public schools during the year was 363,166, — an increase for the year of 5,000. There was an increase of 5,596 in the average membership of the schools, and an increase of 6,028 in the average daily attendance for the year. The per cent. of daily attendance was 90.

PRIVATE SCHOOLS.

The number of private schools reported is 396, — an increase for the year of 48. The number of pupils attending these schools was 37,620, — an increase for the year of 7,000. While these statistics are doubtless somewhat unreliable, they show with sufficient accuracy that the ratio of increase in the number of pupils attending the private schools is much larger than the ratio of increase in the school population. It has long been a maxim with the people of this Commonwealth, that education, so far as is necessary to good citizenship, should be made universal and compulsory. The principle upon which the maxim

rests is found in the laws of the mind, that make intelligence and virtue necessary to the existence of a self-governed State. It is for this reason that the State has taken popular education into its own hands, and has required a sufficient number of public schools to be maintained for all the children who may legally attend upon their exercises. As these schools are organized and supported and controlled by the State, and are, therefore, the products of the wealth and wisdom of the State, it would seem that they must be better adapted than any other educational institutions to produce that general intelligence upon which the well-being of the individual and the citizen must depend. The public schools should be so well supported and so well conducted that all classes and orders of the people, will, without legal compulsion, eagerly avail themselves of their advantages.

The recent movement within the Commonwealth, by which it has come about that the annual increase in the number of pupils in the public schools has, for the time, fallen below the corresponding increase in the private schools, is one regarding which the Board feels called upon, without any partisan or sectarian animus, to express its deep regret. While sufficient reasons may exist in the case of any given child for placing him or her in a private school, either temporarily or permanently, and while the laws of Massachusetts give the parent a free and full choice between a public and an approved private school for his children, the welfare of the public school system, — that system which has long been a crown of glory to Massachusetts, — as well, we are convinced, as the welfare of our youth in general, and also the interest of good government and sound political feeling, require that the great majority of the youth of the State should be educated in the schools which the State itself provides and controls.

The movement to which we have referred, and which we frankly deprecate, is not to be met by restrictive legislation, but by a better feeling throughout the community, and especially by the improvement of the public schools themselves, and the progressive enrichment of their courses of study. In these last ways private enterprise cannot long compete with the power and resources of the Commonwealth; and in this way we may make sure that the cause of the State will win, as it ought.

HIGH SCHOOLS.

The Massachusetts system of public schools includes the high school, which stands at the head of the system. In the lower schools the facts of knowledge are obtained, and the observing powers are or should be the special objects of development. In the high schools the several branches of learning are pursued as sciences, and the powers of generalization and reasoning are cultivated. There are 236 high schools in the State, — an increase of 6 for the year. A large number of towns not required to do so by law, are voluntarily maintaining these schools. It is estimated that over 90 per cent. of the people of the State live in towns supporting high schools. These things show that high schools are in great favor with the people. Primary education flourishes best where secondary education is free to all; and free secondary education offers to all the opportunity of preparing for the advanced studies of the college or the technical school. A high-school training, such as may now be obtained in our best high schools, will, if carried no further in the schools, prepare one to take up the work of practical life with the possibility of attaining the largest measure of success.

EVENING SCHOOLS.

Two hundred and forty evening schools have been maintained the past year, in fifty-one cities and towns, with an attendance of 12,598 pupils. These schools are growing in favor in the Commonwealth, as they furnish a good opportunity for study to those who have passed the legal school age, and are already engaged in the occupations of practical life.

It is greatly to be desired that some way should be devised for securing a more perfect attendance of those who enter upon a course of study in these institutions. The returns show that in many evening schools the attendance is very irregular, and that a large number, after attending a few evenings, drop out altogether.

TRUANT SCHOOLS.

The statutes require every town to provide a suitable place for the confinement, discipline and instruction of its truant children. They also provide that, if three or more towns in a county petition the county commissioners of a county, they

shall establish a county truant school, to which the towns may send their truants. It would impose an unnecessary burden on the small towns to require each one of them to support such a truant school as should be maintained for the right instruction of the few truants such towns would be likely to furnish. They are authorized, therefore, to require the commissioners to provide county schools. Four counties—Berkshire, Hampden, Hampshire and Norfolk—have complied with the law, and are supporting county truant schools, according to its provisions.

Education is cheaper than crime, and statistics collected from all civilized countries show conclusively that the criminal class is everywhere recruited from the ignorant class. For these reasons, no child of school age, nor, according to the limits fixed by the statutes, between the ages of seven and fifteen, should be permitted to wander about the streets, and grow up in ignorance and vice.

TEACHERS' INSTITUTES.

The secretary and the agents of the Board of Education have organized and conducted twenty teachers' institutes the past year, with a membership of about 1,600 public school teachers. These institutes have created great interest in the study of the principles and methods of teaching. They have attracted the attention of the people, as well as of the teachers, school committees and superintendents of schools. They cannot take the place of the normal schools of the State, nor of the training schools of the towns; but by their lessons and discussions, they may so interest and instruct their members as to lead them to take up the study of the philosophy and methods of teaching by themselves, and make a practical application of principles which they may discover, to the daily exercises of their schools. The reformatations and improvements made in methods of teaching generally originate with school teachers who study as they teach.

SUPERVISION OF THE SCHOOLS.

The resolve of the Legislature of 1888, granting aid to the small towns to enable them to unite in districts for the support of special supervision, has resulted in the establishment of

eleven new districts, five others having been organized under the law of 1873. The system of county district school supervision is becoming popular, and is producing, wherever it is tried, a marked improvement in the administration of the country schools. The system may profitably be extended to every town in the Commonwealth not able to provide efficient supervision for itself alone.

FREE TEXT-BOOKS.

The Legislature of 1873 passed a permissive act, granting authority to the cities and towns by ordinance or by vote to supply the public schools with all necessary text-books, which were to be the property of the towns, and to be lent to the pupils under such regulations as the school committees may make. A number of towns availed themselves of the privileges granted by the act. The results were so important and satisfactory that in 1884 an act was passed which provided that the school committee of every city and town shall purchase, at the expense of such city or town, text-books and other school supplies used in the public schools, to be loaned to the pupils free of charge. From the returns it appears that the law is producing important results, — in reducing the cost of books ; in enabling the schools to organize on the first day of the term ; in increasing the attendance upon the schools ; in furnishing a good occasion for teachers to train their pupils to habits of neatness and order, and in making the public schools literally free schools.

INDUSTRIAL EDUCATION.

By a resolve of the Legislature of 1889, the Board is requested to “investigate in its discretion the condition of all schools and institutions in which the instruction given is technical in whole or in part, with a view to ascertaining the character and completeness of the education received in such schools or institutions, and report to the next General Court the result of its investigation, and what additional legislation, if any, is necessary to provide such instruction in the common schools of this Commonwealth.”

In obedience to this requirement, the Board is making the proposed investigations, and will be able early in the session to make the report called for by the resolve.

THE SECRETARY OF THE BOARD.

The secretary of the Board, Hon. John W. Dickinson, has carried forward his official work for the year with the same lofty devotion to the educational interests of the State, and with the same clear and cultivated intelligence, which have made his services so valuable through these many years. It has been, more than all things else, his diligent personal attention to the teachers' institutes which has made them so great a power for good to the schools of the State. He has directed the work of the agents of the Board with wisdom, and his relations to the Board itself have been most fortunate.

STATE AGENTS.

The agents of the Board, Messrs. George A. Walton, George H. Martin, John T. Prince, A. W. Edson, G. T. Fletcher and Henry T. Bailey, the last named having an especial charge to promote the extension and improvement of instruction in drawing throughout the Commonwealth, have performed their duties during the past year to the entire satisfaction of the Board. We deem this body of officers highly qualified for the important positions they fill in the educational system of the State. We believe that their co-operation with teachers and school committees is most efficient, and that their personal and official influence tends strongly to the promotion of the cause of sound learning within the Commonwealth.

CONCLUSION.

In concluding the Fifty-third Annual Report, the Board desires to congratulate the Commonwealth on the continued and increasing success of its system of public schools. Never before in the history of the State were the people more willing to tax themselves for their support, or more determined to make them worthy the patronage of every citizen.

The reports of the visitors of the several normal schools, of the treasurer, the secretary and agents of the Board, are also herewith submitted and approved. Attention is called to these reports as the source of that information which will guide the

towns and the Commonwealth in adopting those measures which have for their end the improvement and more ample yet more economical support of our system of public schools.

OLIVER AMES, *ex officio*.

JOHN Q. A. BRACKETT, *ex officio*.

FRANCIS A. WALKER.

ELMER H. CAPEN.

ELIJAH B. STODDARD.

ALONZO A. MINER.

ALICE FREEMAN PALMER.

ADMIRAL P. STONE.

KATE GANNETT WELLS.

MILTON B. WHITNEY.

Boston, Dec. 31, 1889.

REPORTS OF VISITORS

TO THE

NORMAL SCHOOLS.

STATE NORMAL SCHOOL, BRIDGEWATER.

ALBERT G. BOYDEN, PRINCIPAL.

INSTRUCTORS.

ALBERT GARDNER BOYDEN, A.M., Principal, Educational Study of Man, including the Study of the Body, of the Mind, Science and Art of Teaching, School Organization, School Government, School Laws of Massachusetts and History of Education; FRANZ HEINRICH KIRMAYER, Latin, Greek, French, German; ARTHUR CLARKE BOYDEN, A.M., Chemistry, Mineralogy, Zoölogy, Geology, History and Civil Polity; WILLIAM DUNHAM JACKSON, Botany, Physics, English Literature, Advanced Algebra and Geometry; FRANK FULLER MURDOCK, Geography, Astronomy, Bookkeeping, Physiology and Hygiene; ISABELLE SARA HORNE, Vocal Culture and Reading; CLARA COFFIN PRINCE, Vocal Music, Algebra, Geometry; Mrs. EMMA FRANCES BOWLER, Drawing; FANNIE AMANDA COMSTOCK, Arithmetic, Rhetoric; EMMA CURTIS FISHER, Elementary English, Grammar, Geometry; HARLAN PAGE SHAW, Industrial Laboratory; SARAH ELLEN BRASSILL, Assistant Instructor in Laboratories; GRACE MOOAR HOLDEN, ANNIE WHITE COBB, School of Observation.

The forty-ninth year of the school has been one of prosperity and enlargement. No change has occurred in the corps of instructors.

The number of different pupils in attendance has been larger than in any previous year. The crowded condition of the school-rooms strongly emphasizes the necessity of the increased accommodations now being provided by the Commonwealth.

The recommendation of the Board of Visitors in their last report, that the school buildings should be at once enlarged so as to accommodate two hundred and fifty students, was favorably received by the Legislature. Plans and estimates were prepared and presented to the committee on education, who visited the school, and immediately advised that the plans be changed to embrace the construction of an entirely new building of brick, deeming it unwise further to enlarge the present wooden buildings. Such plans, with estimates, were accordingly presented, and the Legislature appropriated \$150,000 for the purpose.

The town of Bridgewater, at a special meeting, in consideration of the advantages offered by the State to the children of the town, in the school of observation and practice connected with the normal school, sold to the Commonwealth its school

lot, containing one and one-half acres, situated on the south side of the normal school, for the sum of one dollar. Immediately on the close of the term in July, the laboratory building was moved to the easterly part of the new lot, and there permanently located, to be used as a laboratory until the new school building should be completed, then to be converted into sixteen boarding rooms for normal students. The main building was moved to the southerly part of the new lot, and left standing on blocks, with the basement properly inclosed for heating. The steam, water and gas pipe connections with the old sources of supply were then renewed. By these means provision was made for the maintenance of the school in the old buildings during the current school year, and as much longer as may be found necessary.

The new building is to be a brick structure, three stories in height above the basement, with a corridor extending lengthwise through the middle of each story and the basement. It will stand partly on the site of the old building, and extend southward over a portion of the land acquired from the town. Two hundred and fifty normal students and one hundred and twenty town pupils, in the school of observation and practice, ranging from the kindergarten to high-school grade, will be well accommodated.

The north part of the building, having a front of 85 feet and a depth of 65 feet, will contain, on the first floor, the porch, hall, stairways and reception room, four rooms, each 24 by 36 feet,—the men's coat room, the women's cloak room, the library and the class room for history and literature; on the second floor, the assembly hall for the normal school, 50 by 82 feet, with teachers' rooms adjoining; and, on the third floor, four class rooms, each 24 by 36 feet.

The south part of the building is 74 by 74 feet, and will contain, on the first floor, for the school of observation and practice, four rooms, each 30 by 30 feet, with two smaller recitation rooms; on the second floor, for the natural science laboratories, four rooms, each 30 by 30 feet, with two teachers' laboratories between them; and, on the third floor, for physical and chemical laboratories, four rooms, each 30 by 30 feet, with two teachers' laboratories between them.

The middle section of the building is 59 feet wide and 29 feet in depth, containing a stairway from basement to attic,

and, on the first floor, ante-rooms for kindergarten and primary pupils, and two teachers' rooms; on the second floor, two apparatus rooms and one class room for the normal school; and, on the third floor, two class rooms for the normal school.

On the south end of the building is a projection which furnishes, on the first floor, ante-rooms for the intermediate and grammar grade pupils, and a stairway from the upper floors, as a fire-escape.

The basement in the north section contains four rooms, 24 by 36 feet, — the men's lunch room, the women's lunch room, a store room, and a play-room for the girls of the school of observation and practice, — and toilet rooms for the normal department; in the middle section, toilet rooms for the school of observation, and the heating chamber and engine room; in the south section, a play-room for the boys of the school of observation and practice, express room, store room, waste room, and the gymnasium, 12 by 30 by 70 feet, with adjoining toilet rooms.

The boiler house, located between the school building and the boarding hall, and opening into each, has been increased to more than twice its former size. The walls around the boiler house, and so much of the adjacent brick walls of the new building as was necessary for the completion of the boiler house, have been laid. Three new boilers, smoke flues, and two smoke pipes, each 75 feet high, have been set up. The boiler house now contains five steam boilers of forty-three horse power each, with their appurtenances, which will furnish heat and power for all the school buildings.

The new building will be supplied with heat by the fan system, and the air will be taken from the rooms by four large ventilating shafts, two of which enclose the two smoke pipes. A considerable portion of the excavations for the basement of the new building is completed.

The appropriation of \$3,500, made by the last Legislature for repairs and alterations in the boarding hall, has been expended to the extent of \$3,497.29; and bills, with proper vouchers, sent to the State auditor, as follows: —

George Hayward, carpenter,	\$2,796 45
Walter G. Waterman, mason,	195 51
John H. Fairbanks, plumber,	276 77
Braman Brothers, painters,	228 56

The entire cooking service of the boarding hall has been transferred to the basement, which is above ground on the east side of the house. A new kitchen, pantry, store rooms, and servants' dining room, have been provided in the basement. A parlor, another room for students, and two additional trunk rooms, have been finished on the first floor, and a new room in the attic.

These changes have greatly improved the conveniences of the boarding hall. Students are still obliged to seek boarding places outside the hall, and the increased accommodations which the laboratory building will furnish will all be needed.

There has been no change in the teachers of the school of observation, which has steadily been improving the quality of its work.

Good progress has been made in the preparation and classification of specimens for the collections in the natural science work, and in arranging the library, preparatory to going into the new building.

The statistics for the school year ending Aug. 31, 1889, are as follows : —

TERMS BEGAN SEPT. 5, 1888, AND FEB. 6, 1889.	FIRST TERM.			SECOND TERM.			FOR THE YEAR.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Members, . . .	64	165	229	66	151	217	74	186	260
Entering classes, .	24	57	81	9	21	30	33	78	111
Graduates, . . .	3	19	22	19	28	47	22	47	69

The whole number of students who have been members of the school is 3,481, — 1,077 men, 2,404 women. The number who have received certificates or diplomas is 2,126, — 674 men, 1,452 women ; 127 of whom have graduated from the four years' course, — 70 men, 57 women. Of the 260 members of the school for this year, Plymouth County sent 82 ; Norfolk, 40 ; Middlesex, 26 ; Bristol, 25 ; Barnstable, 21 ; Suffolk, 12 ; Berkshire, 7 ; Worcester, 5 ; Essex, 4 ; Dukes, 3 ; Hampden and Nantucket, each 2 ; the State of New Hampshire, 12 ; Maine, 9 ; Vermont, 2 ; Connecticut, North Carolina, Pennsylvania and Indian Territory, each 1 ; Nova Scotia, 2 ; South America, 2. Total from Massachusetts, 12 counties and 80 towns, 229 ; other States and countries, 31.

The number of students during the year pursuing the special course has been 4; the four years' course, 74, — of whom 40 were men and 34 women; the number pursuing the intermediate course, 9; the two years' course, 177.

The distribution of the students the first term was as follows: Special course, 4; four years' course, 68; intermediate course, 9; two years' course, senior class, 23; sub-senior class, 40; ex-junior class, 23; junior class, 62. The distribution during the second term: Special course, 3; four years' course, 66; intermediate course, 4; two years' course, senior class, 45; sub-senior class, 17; ex-junior class, 57; junior class, 25.

The average age of those admitted during the year was nineteen years, eight months: of the men, twenty years, six months; of the women, nineteen years, three months.

Of the 111 admitted, 2 came from colleges, 4 from normal schools, 85 from high schools (66 graduates, 19 undergraduates), 5 from grammar schools, 15 from academies and private schools; 25 of these had taught.

The occupations of the fathers of those admitted were given as follows: Mechanics, 37; farmers, 16; merchants, 13; teachers and professional men, 6; manufacturers, 6; laborers, 6; sea captains, 4; miscellaneous, 17; not given, 6.

Of the 111 pupils admitted during the year, Brockton sent 7; Boston, Hingham, West Bridgewater, 4 each; Cambridge, Fall River, Rockland, 3 each; Abington, Adams, Attleborough, Brewster, Bridgewater, Easton, East Bridgewater, Hanover, Medway, Middleborough, Nantucket, Natick, New Bedford, North Adams, Provincetown, Quincy, Stoneham, Waltham, Weymouth, 2 each; Acton, Andover, Braintree, Chelsea, Dartmouth, Dennis, Dunstable, Duxbury, Falmouth, Gloucester, Harwich, Lancaster, Lincoln, Lowell, Milton, Newton, Norwood, Orleans, Rochester, Sharon, Springfield, Templeton, Upton, Wareham, Westford, Westport, Yarmouth, 1 each; New Hampshire, 9; Maine, 5; Connecticut, North Carolina and Vermont, 1 each; Nova Scotia, 1.

It appears from the above that three-fourths of those admitted came from high schools; that the majority are graduates of high schools; that one-third of the 260 students for the year have pursued the advanced course, thereby indicating the demand for an extended course of training for teachers. This demand has steadily increased. During the first six years of the school's history, the required course of studies extended through two terms of fourteen weeks each, which need not be

consecutive; from 1846 to 1855, through three consecutive terms of fourteen weeks; from 1855 to 1865, through three consecutive terms of twenty weeks; since 1865 it has been four consecutive terms of twenty weeks. In 1869 provision was made for a course of four years, the last two years being optional. The following table shows the effect of this provision.

YEARS OF ADVANCED COURSE.	DIFFERENT PUPILS IN ATTENDANCE.			NUMBER PURSUING ADVANCED COURSE.			GRADUATES FROM FOUR YEARS' COURSE.		NO. OF THESE GRADUATES WHO HAVE TAUGHT.	
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Men.	Women.
1869-70, .	43	148	191	2	1	3	-	-	-	-
1870-71, .	42	137	179	4	10	14	-	-	-	-
1871-72, .	40	157	197	6	11	17	2	-	2	-
1872-73, .	39	159	198	3	9	12	-	-	-	-
1873-74, .	43	157	200	5	9	14	1	2	1	2
1874-75, .	55	155	210	10	14	24	1	3	1	2
1875-76, .	60	141	201	13	18	31	4	2	4	2
1876-77, .	80	131	211	20	17	37	-	2	-	2
1877-78, .	65	123	188	31	17	48	3	4	3	4
1878-79, .	65	140	205	29	17	46	4	3	4	3
1879-80, .	66	133	199	30	16	46	9	-	9	-
1880-81, .	51	128	179	21	22	43	6	4	5	4
1881-82, .	46	148	194	28	33	61	4	1	4	1
1882-83, .	46	153	199	31	31	62	7	3	7	3
1883-84, .	43	167	210	24	28	52	2	5	2	5
1884-85, .	43	154	197	28	38	66	4	4	4	4
1885-86, .	52	162	214	35	37	72	5	2	4	2
1886-87, .	56	178	234	38	41	79	2	4	2	4
1887-88, .	60	191	251	45	43	88	6	11	6	10
1888-89, .	74	186	260	46	41	87	10	7	9	7
	-	-	-	-	-	-	70	57	67	55

The two years' course is wholly English. The four years' course, in addition to two years' course, includes advanced English studies, Latin, Greek, French and German. Students can take one, two, three or four terms, in addition to the required course of two years. Many have taken a three years' course, and 127 have graduated from the full four years' course. Most of those electing this course are graduates of high schools.

Of the 70 men graduated from the four years' course, all, except one who is in Harvard College, and one who died soon after graduation, have taught, — five in normal schools, twelve as principals and two as assistants in high schools. Two of these have become superintendents of schools; two have become masters and ten sub-masters, in large city grammar schools; thirty-four, principals in town grammar schools; two, teachers in academies; and one, a teacher of music.

Of the 57 women graduated from the four years' course, all, except two who married soon after graduation, have taught, — nine in normal schools, twenty-five in high schools, seven in city grammar schools, ten in town grammar schools, one in a primary school, one in an institution for the blind; one is a teacher of music, and one is a missionary in India.

The graduates from the three years' course have taught in similar positions. Eight men, graduates of colleges, have taken the special course during the last six years.

The work of the four years' course thus far has been accomplished against serious impediments. An inadequate teaching force has made it necessary to put students on this course into the same class with those on the two years' course in many of the English studies, often keeping back those on the advanced course, and making classes too large for the best work in either course. Overcrowded class rooms and lack of suitable appliances in some studies have greatly hindered the work. With the new building properly furnished, the last two difficulties will be overcome.

The steady growth of the school the last twenty years is largely due to the higher qualifications of its graduates. The utility of the four years' course is beyond question. It has been a strong stimulus to the students taking the two years' course, and has greatly elevated the standing of the school in

public estimation. It should be made as efficient as possible. It meets the needs of many young persons of good ability, but of limited means, who have had high-school training; and furnishes competent teachers for important positions in the public schools. Successful teachers of this grade are sought for as superintendents of schools. The teaching force of the school should be sufficient to conduct this course separately, and in the most effective manner. Some advance should be made in the qualifications required for admission to it. The normal school, in providing this longer course, is not the competitor, but the coadjutor, of the technical school and the college.

Respectfully submitted,

FRANCIS A. WALKER,
ALICE FREEMAN PALMER,
J. W. DICKINSON,

Visitors.

STATE NORMAL SCHOOL, FRAMINGHAM.

MISS ELLEN HYDE, PRINCIPAL.

INSTRUCTORS.

ELLEN HYDE, Psychology, Moral Philosophy, Principles of Teaching; AMELIA DAVIS, Mathematics, Astronomy; JANET W. WILLIAMS, Botany, Biology, Physiology, Chemistry, Mineralogy; ELLA J. GIBBS, English Language, Literature, History; SARAH E. PRATT, Physics, Latin, Geography, History of Education; ELLEN A. WILLIAMS, Critic of Teaching and Principal of Practice School; CELESTE E. BUSH, History, Latin; MARY E. TRASK, Assistant Critic of Teaching; AUGUSTA BARBER, Primary School; MAY F. BENNETT, Grammar School; JENNIE B. BADET, Intermediate School; JANE E. IRESON, Reading; ELIZABETH CREVELING, Drawing; HENRIETTA L. GRAVES, Physiology and Latin; WM. S. TILDEN, Singing; RUTH COURVOISIER, French.

The Framingham Normal School naturally rejoices that it can claim the honor of being the first normal school established in Massachusetts, and that the prestige and enthusiasm which attended its opening has steadily increased, clustering around it more and more firmly with each year's progress in knowledge and pedagogy.

The semi-centennial of the school was celebrated July 2, 1889. Dr. Wm. T. Harris made the opening address, and Mrs. George A. Walton, a former graduate of the school, gave the historical address, which was full of interest and charm. A collation was served at noon, and in the evening a reception for the graduates of the school was held in Crocker Hall, when more than six hundred were present, who came back to exchange greetings with the large sisterhood of students, united by gratitude to their alma mater. Miss Hyde presided over the arrangements with easy cordiality and admirable method. It was a day on which tender emotion and justifiable pride were intermingled.

It is with much gratification that the visitors of the school report its constantly growing usefulness. Its quiet, earnest, steady spirit of work is creating an influence which will guide the after lives of the pupils. The most striking feature of the

school is its development of concentration and of quietness in the pupils. We do not mean that there is not animation in the manner of teaching,—an indispensable requisite to success,—but there is throughout the school an absence of hurry, of “stint;” that is, of just so much work to be done in just so much time. The scholars do not start in their course with a sense of hurry or of anxiety, but with perception of the need of persistent endeavor.

The life of the girls boarding at Crocker and Normal halls is characterized by refinement and repose. The appointments of the house and table are simple and inexpensive, but all in good taste. The boarders are expected to be ladies as well as students. Such expectations will find their fulfilment in the demands which our pupils will in turn make upon their future scholars. The family half-hour after dinner; the evening classes in gymnastics; the sewing circle on Saturday nights, with the frequent reading aloud of some essay, accompanied by discussion of it; the afternoon teas during two or three winter months, for the graduating class,—all tend to produce a well-trained womanhood.

To Miss Hyde, the principal of the school, is due its inspiration, its high standard of character and instruction. Yet it would be unfair to her corps of admirable teachers, and to the excellent housekeeping and motherly care of Miss Beach, not to recognize the help they give to Miss Hyde in every way. This has been plainly shown the last few months, when severe illness detained Miss Hyde in Colorado, and on her return confined her to her room for some time longer. All the summer correspondence, concerning the employment of graduates or the entrance of new pupils, was efficiently conducted by Miss Gibbs. Miss Beach superintended the repairs at Normal Hall. When the school opened, Miss Davis, first assistant, took charge of it with great ability, Miss Hyde gradually assuming her old duties with renewed vigor.

The last two years have been anxious ones, for we are building with insufficient means. Our new school-house, begun July, 1888, will not be large enough to meet the demands of our growing number of pupils. The original plans were diminished to conform with the appropriations of the Legislature. The building, however, will be far better than the present un-

safe and aged structure in which the school now meets. We especially regret the inadequacy of May Hall, in connection with its effect upon the practice school.

Our normal schools, established for the purpose of pedagogy, have not always been free from requirements which pertain to high-school instruction. To afford normal pupils the advantages of learning how to teach under the observation of experienced teachers, Miss Hyde opened a practice school for her scholars. The members of the graduating class in their efforts at teaching are constantly supervised; the instruction is systematic, regular, progressive. They also learn the art of discipline, often finding reason to moderate their more zealous methods by quiet persistency in moral suasion. We consider the work in the practice school as important as any that is done in other class rooms. We have given much of our time to inspection of its value, so that we have no hesitation in pronouncing the graduates of the school able to teach clearly, to discipline kindly, and to inspire in the minds of the children a great interest in their lessons; especially are they able to trace the relation of one fact or truth to another, so far as it comes within the province of early youth.

The normal school proper is full to overflowing, indicating, for numerical reasons if for no others, the desirability of raising the standard for admission. There have been a few changes among the teachers. Miss Elizabeth Creveling has become instructor of drawing, in the place of Miss M. Louise Field, whose time is now claimed by the Normal Art School, on account of her rare ability. Miss Janet W. Williams has again, to our gratification, resumed the work which was conducted during her absence by Miss Groteclose, who has married. Miss Ellen A. Williams has also come back to us, after her well-earned rest of six months. Miss Bridgman has left us, after three years of admirable work. Mdlle. Courvoisier is our excellent French teacher. We have been very fortunate in securing the services of Miss Celeste E. Bush, who has had large experience elsewhere.

The following gentlemen have kindly lectured for us the past year, always awakening enthusiasm in the pupils: Professor Dolbear of Tufts College, on "Electricity;" Rev. Dr. Mayo, on "Some Things that People expect of Teachers;" Rev. Mr. Dike, on "The Country Town;" Prof. Edwin D. Mead, on

“The Study of History.” Gen. Walker, Dr. Miner, Prof. Barrett Wendell and Mrs. K. G. Wells have spoken at the exercises of the graduating classes. In November, 1888, Miss Laura Bridgman came for the last time to the school and made a few remarks with her fingers. She always enjoyed her frequent visits to Framingham.

We are confronted with problems of finance and education. We need an adequate and good supply of drinking water, further imperative repairs on Normal Hall, and the laying out of the grounds, including five hundred feet of driveway. We wish we could have a bank wall along our street front, and a wire fence round the other sides of the lot of land. We are directed to procure further fire-escapes. For all this we shall want about ten thousand dollars.

The change which in our judgment is important, and which we wish could be effected this year, is the abolition of any mid-year entering class. We should thus have but one graduating class yearly. Our objections to the present plan are: First, the work of the school is doubled; we have four classes where we need have but two. Second, the admission of new, untrained classes each six months keeps the school constantly below the standard it might otherwise attain. The winter class is always small. Doubtless there would be a few, for a year or two, who would find it inconvenient not to join when they please; but in a very short time the outside public would have accommodated itself to the change. We therefore respectfully submit that the advantage to the school from such a course would be so great that we hope the change may be allowed.

If the mid-year class was not allowed, we should like to give up the winter vacation, begin our school year later, and close earlier. We should thus escape the hot and trying weather of June and September. We could then begin on the third Wednesday of September, have three days at Thanksgiving, a week at Christmas and at Easter, with the usual legal holidays, and still have thirty-seven weeks of school work. Out of the forty weeks of study, as at present arranged, are taken the recesses. The two weeks' recess in the middle of the year is especially demoralizing. If, again, this arrangement might be granted, then we suggest that it would become practicable to raise the age of admission to seventeen years, with perhaps stricter requirements in regard to knowledge. It might also

be possible to lengthen the course of study, and expect three years at least of each pupil. Now we require twenty-eight different subjects in thirty-seven weeks, which gives thirty-eight recitations in each subject.

We say this after most serious consideration of the problem, and frequent interviews with various educators connected with the normal and other schools. If our normal schools are to be institutions for pedagogy, as well as for a collegiate curriculum of studies, is not some such change demanded? We should be glad if this change could be introduced into the school, for we think experience would then demonstrate its wisdom. Whatever may be your decision in regard to the matter, we rejoice in whatever of good the school already possesses, and we trust that it will still further approve itself to your judgment.

We present the following statistics of the numerical prosperity of the school for the year 1888-89, prepared by the principal:—

Number of pupils admitted: September, 1888, 64; February, 1889, 19; total, 83.

From high schools, 61; from common schools, 16; from private schools and academies, 6.

Number who had taught, 5.

Average age: September, 1888, 18 years, 2 months; February, 1889, 19 years, 8 months.

Whole number of pupils for the year 1888-89, 187.

Number of graduates: January, 1889, 7; June, 1889, 25; total, 32.

Residence of pupils admitted during 1888-89: New Hampshire, 5; Maine, 2; Florida, 1; Pennsylvania, 1; Connecticut, 1; Georgia, 1; Iowa, 1; England, 3. Massachusetts: Middlesex County, 44; Worcester County, 5; Norfolk County, 10; Bristol County, 3; Suffolk County, 2; Essex County, 2; Franklin County, 1; Nantucket County, 1; total, 68.

Occupation of parents of pupils admitted in 1888-89: agricultural, 21; mercantile, 12; mechanical, 16; professional, 6; manufacturing, 5; unskilled labor, 1; clerical, 3; unclassified, 19.

Of the 32 graduates, 5 are taking the advanced course, 1 is studying music in Germany, 2 are detained at home, the others are teaching.

KATE GANNETT WELLS,
A. A. MINER,
J. W. DICKINSON,

Visitors.

STATE NORMAL SCHOOL, SALEM.

DANIEL B. HAGAR, PRINCIPAL.

INSTRUCTORS.

DANIEL B. HAGAR, A.M., Ph.D., Psychology applied to Principles and Methods of Teaching, School Management, History of Education, School Laws of Massachusetts, Civil Government, Advanced Latin, Vocal Music and General Exercises; ELLEN M. DODGE, Mental Philosophy, English Literature and German; CAROLINE J. COLE, English Literature, General History, Astronomy, Geography and English Composition; MARY N. PLUMER, Elementary Arithmetic, Botany and Penmanship; SOPHIA O. DRIVER, Latin, English Grammar, Advanced Geometry and Geology; HARRIET L. MARTIN, Algebra, Geometry, Advanced Arithmetic, Book-keeping; E. ADELAIDE TOWLE, Physiology, Object Lessons and Composition; MARY E. GODDEN, English Grammar, United States History and Composition; HARRIET D. ALLEN, Reading, Elocution, Composition and School Records; ELIZABETH N. JONES, Arithmetic, Geography and Composition; JESSIE P. LEAROYD, Latin, French and Geography; ANNA K. BLAISDELL, Drawing; CHARLES E. ADAMS, Chemistry, Physics and Zoölogy.

The work of the school during the year — the twenty-fourth of Mr. Hagar's principalship — was carried on in the usual orderly and earnest way. All of the teachers labored together harmoniously, and with a sincere desire to render faithful service to the State. The principal expresses his feeling of obligation to his associate teachers for their willing co-operation in his efforts to promote the best interests of the school.

The special appropriation made by the Legislature last winter for the benefit of the school, has been expended. The new water-closets are complete in every respect, including perfect ventilation. The arrangements and equipment of the new physical laboratory are admirable.

The statistics of the school are as follows : —

1. The whole number of pupils belonging to the school during the year was 292. Of this number, Essex County sent 168; Middlesex, 70; Suffolk, 15; Barnstable, Hampden, Norfolk, Plymouth and Worcester, 1 each. The State of Maine sent 7; New Hampshire, 25; Connecticut, 1; and Kentucky, 1. The number present during the term which closed Jan. 22, 1889, was 234; the number present during the term which closed June 25, 1889, was 229. The whole number of pupils that have been members of the school since its opening in September, 1854, is 3,482.

2. The number graduated from the regular course, Jan. 22, 1889, was 36; the number graduated from the same course, June 25, 1889, was 28; and from the advanced course, 1. The whole number of graduates of the 66 classes is 1,693.

3. The number that entered the school Sept. 4, 1888, was 72; the number that entered Feb. 5, 1889, was 50.

4. The average age of the class admitted Sept. 4, 1888, was 18.86 years; of the class admitted Feb. 5, 1889, 18.41 years.

5. Of the 72 pupils admitted in September, 1888, 1 came from a normal school, 51 from high schools (36 graduates, 15 undergraduates), 9 from grammar schools, 3 from ungraded schools, 3 from academies, 3 from parochial schools, 1 from a college, and 1 from a seminary. Of the 50 pupils admitted in February, 1889, 35 came from high schools (24 graduates and 11 undergraduates), 7 from grammar schools, 2 from ungraded schools, 4 from academies, 1 from a seminary, and 1 from a parochial school.

6. The fathers of the 122 pupils admitted during the year are by occupation as follows: mechanics, 33; farmers, 20; merchants, 15; manufacturers, 14; professional men, 4; miscellaneous, 36.

7. Of the class admitted in September, 1888, 13 had taught school; of the class admitted in February, 1889, 7 had taught.

8. The number of pupils connected with each of the classes during the first term of the year was as follows: special students, 2; advanced class, 10; class A (senior), 42; class B, 45; class C, 51; class D, 84. The number during the second term was: special students, 5; advanced class, 10; class A, 44; class B, 44; class C, 60; class D, 66.

9. Of the 122 pupils admitted during the year, Salem sent 19; Lynn, 9; Danvers, 7; Somerville, 6; Gloucester and Peabody, 5 each; Beverly and Lowell, 4 each; Bedford, Boston, Chelsea, Cambridge, Essex, Manchester, Methuen, Reading and Tapleville, 2 each; Amesbury, Arlington, Bolton, Boxford, Brookline, Burlington, Byfield, Cambridge, Chatham, Everett, Groveland, Holyoke, Ipswich, Lexington, Lynnfield, Marblehead, Nahant, Newton, North Reading, Rockport, Rowley, Salisbury, Saugus, Stoneham, Tyngsborough, Waltham, Wenham and Woburn, 1 each. Maine sent 1; New Hampshire, 15; and Kentucky, 1.

10. During the year 38 books were added to the general library. The text-book library was increased by the purchase of 293 books.

E. H. CAPEN,
FRANCIS A. WALKER,
JOHN W. DICKINSON,

Visitors.

STATE NORMAL SCHOOL, WESTFIELD.

JAMES C. GREENOUGH, PRINCIPAL.

INSTRUCTORS.

JAMES C. GREENOUGH, A.M., Principal, Psychology, Didactics, Civil Polity, Rhetoric; FREDERICK W. STAEBNER, Physiology, Zoölogy, Geology, Mineralogy, Geography, Botany, German; FRANK W. SMITH, A.M., Latin, Greek; A. C. LONGDEN, A.M., Physics, Chemistry, Arithmetic, Composition; ELVIRA CARVER, Geography, English Literature, Algebra; LAURA C. HARDING, Geometry, Astronomy, Book-keeping, Reading, Vocal Music, French, Composition; SARAH M. KNEIL, Geometry, Arithmetic (second term), Grammar, History, Composition; ANNIE N. SINCLAIR, Drawing, Penmanship.

During the last year the Westfield Normal School has enjoyed a high degree of prosperity. The whole number in attendance during the school year that closed in June, 1889, was larger than during any year of the preceding decade. While the number of pupils in attendance furnishes no definite test of the success of a normal school, increasing numbers do furnish evidence of a growing appreciation of the value of the school.

Owing to the thinly populated towns included in western Massachusetts, many sections are without the privileges of high schools; yet a large proportion of those who enter the school have spent from one to four years in a high school. One result of this better preparation is, that a larger number than usual from the last entering class have taken studies of the advanced course.

In our last annual report, we spoke of the temporary retirement of Joseph G. Scott from the board of instructors. In February, 1889, his health forbidding him to resume his work in the school, he resigned his position of first assistant. He died at Manitou Springs, Colorado, May 9. Mr. Scott entered the normal school as a pupil in 1855, and graduated with high rank in 1856. After teaching elsewhere with marked success, he was appointed one of the assistant teachers in this

school in November, 1861. Soon after the resignation of J. W. Dickinson as principal, to accept the position of secretary of the Board of Education, in 1877, Mr. Scott was appointed principal of the school. He discharged the duties of the position with singular fidelity and success until Feb. 1, 1887, when he resigned, to resume his former position as first assistant. Failing health soon compelled him to relinquish his much-loved work. In view of his skill as a teacher and his rare excellence as a man, words seem inadequate to express his worth.

The branches taught by Mr. Scott are now taught by A. C. Longden and F. W. Staebner. In January, 1889, Miss Fanny H. Smith tendered her resignation as teacher of drawing and penmanship. Her services were highly valued, and her resignation was reluctantly accepted. Miss Annie N. Sinclair was appointed in place of Miss Smith, and is discharging the duties of the position very acceptably.

The principles formulated and the method of teaching developed in the Westfield school have long ago passed beyond the experimental stage. They are now endorsed by the teaching of the best normal schools in the land. It is our purpose to apply these principles and to perfect the method so as to increase the value of the professional work of the school. When our new building is completed, we shall increase the efficiency of our training by furnishing a more convenient opportunity for the students of the normal school to observe the daily work of schools of different grades. The members of the senior class will also have better opportunities to teach children in the several grades; but it is proposed in no way to limit that constant training in class teaching which has proved such an effective agency in fitting teachers for their work, and which has enabled so many of the graduates of the Westfield school to take charge of training schools in our own and in other States.

Those who have graduated during the year, with very few exceptions, have engaged in teaching. In fact, the demand for those who can apply the methods of the Westfield school has been such that many of the undergraduates have secured good positions as teachers. School committees almost uniformly speak of the success of the graduates.

The boarding hall furnishes excellent accommodations for those pupils who cannot remain at home while attending the normal school. The new system of plumbing recently put in, and the provision for sewage, have secured admirable sanitary conditions. During the summer and autumn, most of the outside woodwork and the roofs have been painted.

Mrs. M. J. Germaine, who for two years, as matron, cared for the students personally with the devotion of a mother, resigned at the close of the school year; and Mrs. Martha A. Sparks, a woman of culture and of large experience in the line of her present duties, has been secured as matron. Students, teachers, and those who are employed in the hall, very generally seem earnest in their desire to co-operate with the matron and with each other to secure for all a cheerful home. Occasional visitors, and those who have lived in the hall upwards of two years, speak in the highest terms of its orderly and quiet arrangements, of the good health and abounding cheer of the students, and of the many thoughtful provisions for their welfare.

The school is readily accessible by the frequent trains of the Boston & Albany Railroad running east and west, by the trains of the New York & New Haven Railroad running north and south, and by the trains of a third road connecting Westfield and Holyoke; still, the travelling expenses of those students living at a distance from the school impose an unequal burden. An equitable system of mileage for students attending the school is but justice to those living at a distance, and would enable the school to render more effective service in promoting the interests of public schools in western Massachusetts.

Statistics of Westfield Normal School, 1888-89.

I.

	WINTER TERM.			SUMMER TERM.			FOR THE YEAR.		
	Young Men.	Young Women.	Total.	Young Men.	Young Women.	Total.	Young Men.	Young Women.	Total.
Number of pupils in school, . . .	7	126	133	4	127	131	8	160	168
Number of pupils in entering classes,	3	53	56	1	31	32	4	84	88
Number of graduates, . . .	1	17	18	—	21	21	1	38	39
Average age of enterers, . . .	Yrs. Mos. 19 8.2	Yrs. Mos. 18 8.3	Yrs. Mos. 18 8.9	Yrs. Mos. 19 11.3	Yrs. Mos. 19 9.8	Yrs. Mos. 19 9.8	Yrs. Mos. 19 9.0	Yrs. Mos. 19 1.3	Yrs. Mos. 19 1.6
Average age of graduates, . . .	23 0.0	20 7.1	20 8.7	—	22 4.3	22 4.3	23 0.0	21 6.8	21 7.3
Number of enterers who had taught, .	1	17	18	1	15	16	2	32	34

II.

NUMBER OF STATES, ETC., REPRESENTED BY PUPILS.		Number of pupils from each State represented.		Number of pupils from each county of Massa- chusetts represented.		Occupations of fathers of enterers.		Number of enterers from each of various schools.	
States and countries, . . .	8	Connecticut, . . .	14	Barnstable, . . .	1	Commercial travellers, . . .	3	Academies, . . .	13
Towns and cities, . . .	65	Massachusetts, . . .	142	Berkshire, . . .	15	Factory officers, . . .	5	Colleges, . . .	3
Counties in Massachusetts, . . .	8	New Hampshire, . . .	6	Essex, . . .	2	Farmers, . . .	34	District schools, . . .	14
Families,	163	New York, . . .	1	Franklin, . . .	6	Laborers, . . .	4	Grammar schools, . . .	5
		Vermont, . . .	1	Hampden, . . .	84	Machinists, . . .	1	High schools, . . .	46*
		Virginia, . . .	2	Hampshire, . . .	19	Manufacturers, . . .	3	Unclassified, . . .	7
		Tennessee, . . .	1	Suffolk, . . .	2	Mechanics, . . .	18		
		Nova Scotia, . . .	1	Worcester, . . .	13	Merchants, . . .	4		
						Physicians, . . .	3		
						Unclassified, . . .	13		

* 22 graduates.

The visitors, acting as the building committee of the Board, have purchased, for \$12,500, a tract of land containing about two acres, as a site for the new normal school building at Westfield, for which an appropriation of \$150,000 was made by the last Legislature. The visitors did not all concur in the selection of this site, one member preferring the site upon the corner of Court and Washington streets, nearly opposite to the normal boarding hall.

Soon after the passage of the resolve granting the appropriation, we engaged competent architects to prepare plans and specifications for the new building, and hoped to have begun its erection early in the autumn of the present year; but, owing to causes beyond our control, the plans and specifications for the entire work are not yet (Dec. 5, 1889) completed. We have, however, begun the work of excavation, and expect to lay the foundations during the present year, if the weather shall permit.

The Legislature of 1889 appropriated \$250, to be expended under the direction of the Board, to aid the school in fitly celebrating its semi-centennial anniversary. The exercises of this anniversary took place at the end of the summer term, on Tuesday, June 25, and were held in the Methodist Episcopal Church, one of the largest church edifices in western Massachusetts, and it was well filled. The triennial exercises of the Normal Association were held on the same day. The chairman of the Board of Visitors presided, and opened the exercises of the anniversary by a brief address. Arthur S. Kneil, Esq., of Westfield, in graceful words welcomed the invited guests and former members of the school; and Charles A. Richardson, Esq., president of the Normal Association, made reply. Then followed the brief graduating exercises of the class of 1889, under the direction of Principal Greenough, who made an appropriate and able address to the graduating class; and Mr. Stone of the Board of Visitors accompanied the delivery of the diplomas with a fitting address upon the duties and responsibilities of teachers. An address of great merit was then delivered by John Bascom, L.L.D., ex-president of Wisconsin University; and he was followed by Secretary J. W. Dickinson, who gave a carefully prepared and comprehensive outline of the history of the school during the fifty years of its existence.

The collation was served at Normal Hall, and was a rare social occasion. President Richardson presided, and called for brief addresses; but the large number in attendance led to an early adjournment to the hall of the school building, where the remaining exercises were held, consisting of brief addresses, and the reading of several interesting letters from former teachers and pupils of the school. Our limits forbid any extended report of the varied and interesting exercises.

In the evening there was a reception at Normal Hall, which closed one of the most enthusiastic occasions that has ever occurred in the history of the school. It was estimated that four hundred former students were present, many of them occupying important positions as teachers in the cities and towns of the Commonwealth.

Lectures have been given the school during the past year by Professor Burgess of Columbia College, New York, upon Ireland; by Rev. J. W. Harding of Longmeadow, upon the civilizations bordering upon the St. Lawrence and Connecticut rivers; and by Secretary Dickinson, upon the principles and methods of teaching. G. T. Fletcher, agent of the Board of Education, has also given the students valuable suggestions from time to time. T. M. Balliet, superintendent of public schools, Springfield, gave an address at the time of our² graduating exercises in January, and brief addresses were made by Hon. M. B. Whitney and others.

MILTON B. WHITNEY,
A. P. STONE,
J. W. DICKINSON,

Visitors.

STATE NORMAL SCHOOL, WORCESTER.

E. HARLOW RUSSELL, PRINCIPAL.

INSTRUCTORS.

E. HARLOW RUSSELL, History of Education, Principles of Education, Teaching, Hygiene, Shakspeare, Reading, Physical Exercises; HENRY W. BROWN, Psychology, Grammar, English, German; CHARLES F. ADAMS, News, Geography, Natural Science, Geometry, Arithmetic, Geology; Miss REBECCA JONES, Elementary Methods; Miss ELLEN M. HASKELL, Civil Government, History, Rhetoric, English, Geography; Miss HELEN F. MARSH, Music, Drawing; Miss JULIET PORTER, Arithmetic, Algebra, Geometry, Geography, Physiology; Miss ARABELLA H. TUCKER, Botany, Grammar, Penmanship; Mrs. MARION J. SUMNER, Choral Singing.

The visitors report with gratification the continued prosperity and increasing usefulness of this school. There is no abatement of zeal in the teachers, nor of enthusiasm in the students. The resources generously placed at the disposal of the school from year to year, by successive appropriations of the Legislature, are scrupulously devoted to the sole purpose for which they were made. The graduates are in steady demand, both at home and abroad; and, as a matter of record, more than ninety per cent. of them teach, with unquestionable acceptance, in the public schools of the Commonwealth.

INSTRUCTORS.

The teaching staff is composed wholly of mature and experienced instructors, whose wide and varied attainments and whose weight of character give unusual force to their influence upon the students. While as teachers they are by no means cast in the same mould, but differ greatly in their methods and manner of instruction, — a fact which the visitors regard as highly favorable to the maintenance of a broad and liberal system of training, — they yet work together in a spirit of harmony and mutual good-will, and make upon their pupils an unblurred impression of unity of aim and strict adherence to the principles of sound education. It is the good fortune of

this school to have enjoyed the services of such instructors for many years, and it is the hope of the visitors that their ranks may remain unbroken for many years to come.

GRADUATES.

Our first class was graduated in 1876, and numbered ten members. We have up to this time given diplomas to twenty-five classes, with an aggregate membership of four hundred. It has not been made a light and easy thing to gain the honors of graduation at this school. One evidence of this may be found in the fact that, of these four hundred graduates, not one has failed to pass the teachers' examinations of the city of Worcester. This means, of course, careful sifting of our material, and it also means, in general, the survival of the fittest. While probably a few individuals have been rejected who might well have been included, and while with equal probability a few may have been approved who have since failed to show good claim to their diplomas, there is no doubt whatever that the great body of these graduates do honor to the school, and that the State has reaped great and lasting benefit to her public schools, from the services of these four hundred selected and trained teachers. Many of them already fill places of exceptional responsibility in this and other States, while, so far as is known to us, not one has ever been dismissed from any position in disgrace. This fact, in the opinion of the visitors, is largely due to the sound moral instruction and the high moral tone which has always been a marked characteristic of this school.

It is, moreover, no slight cause for gratification that these graduates, almost without exception, retain for the school and its teachers the liveliest feelings of loyalty and gratitude. Every day brings friendly letters from them, and no week passes without visits from some of them. They have formed a graduates' association, not alone for social reunions, but also to promote a filial spirit towards the school, and to advance its interests.

STUDENTS.

The average age of those who apply for admission is slowly increasing, and their attainments are perceptibly improving year by year. The policy steadily maintained, of admitting

only such as have the work of teaching seriously and immediately in view, serves to keep the school compact and homogeneous, as to the aim and purpose of its students. It is a normal school, and nothing else. It does not coquet with high-school or college work.

A considerable majority of the entering classes are high-school graduates, and not a few have had successful experiences as teachers. They thus fall easily and naturally into our line of work, and readily imbibe the spirit of the school. The most casual visitor cannot fail to see that they are in earnest, and that they have a definite object in view. And it should be added that they play as heartily as they work. There is not only earnestness in their demeanor, but also and noticeably the freedom and light-heartedness proper to youth and health.

ACKNOWLEDGMENTS.

Our warmest thanks are due to Gen. Francis A. Walker, who, at considerable personal inconvenience, honored the occasion of our anniversary with his presence, and gave us an interesting and valuable address.

The graduating classes, in their order, continue to enrich and beautify our halls with works of art. Friends, whose names are too numerous to mention here, have made many gifts to the school, such as books, pictures, plants and trees for the grounds, natural history specimens for the museum, etc., all of which are duly enumerated in our annual catalogue.

STATISTICS FOR THE YEAR 1888-89.

1. Numbers: number of pupils in the first term, 189; number of pupils in the second term, 206; whole number of pupils in attendance during the year, 245.
2. Numbers in entering classes: in September, 1888, 46; in January, 1889, 21; total, 67.
3. Average age of pupils admitted: in September, 1888, nineteen years, nine months; in January, 1889, eighteen years, ten months.
4. Of those admitted there were: from Worcester County, 58; Franklin County, 2; Middlesex County, 1; New Hampshire, 4; Vermont, 1; Japan, 1; total, 67.
5. Occupations of pupils' parents: professional, 1; mercantile, 10; skilled labor, 37; unknown, 3; total, 67.

6. Numbers in graduating classes : in January, 1889, 24 ; in June, 1889, 16 ; total, 40.

7. Average age of graduates : in January, 1889, twenty-one years, two months ; in June, 1889, twenty-one years, four months.

8. The library : number of volumes of text-books added, 133 ; number of volumes of reference books added, 147 ; total additions, 280 volumes. Number of text-books reported last year, 4,850 ; number added this year, 133 ; total, 4,983. Worn out by use, 63. Number of volumes now in text-book library, 4,920 ; number of volumes now in reference library, 2,487 ; total, 7,407.

E. B. STODDARD,

A. P. STONE,

J. W. DICKINSON,

Visitors.

STATE NORMAL ART SCHOOL.

GEORGE H. BARTLETT, PRINCIPAL.

INSTRUCTORS.

MR. G. H. BARTLETT, Lecturer and Teacher of Historic Schools of Ornament, Design, Light and Shade; MR. GEORGE JEPSON, Geometry, Orthographic Projection, Projection of Shadows, Descriptive Geometry, Elementary and Advanced Machine Drawing; MR. HENRY H. KENDALL, Building Construction and Architectural Design; MR. J. FRISBEE, Ship Draughting; MISS DERISTHE L. HOYT, Theory of Color and Monochrome, Water-color Painting, Chemistry of Colors and History of Painting; MISS MERCY A. BAILEY, Oil Painting, Industrial Design, Theory and Harmony of Color; MR. ALBERT H. MUNSELL, Drawing and Painting of the Figure, and Anatomy; MR. A. K. CROSS, Orthographic Projection, Projection of Shadows, Machine Drawing, Model Drawing, Advanced Perspective, Descriptive Geometry, Topography and Ship Draughting; MR. T. E. SWEENEY, Sculpture and Design in the Round, Modelling and Casting, Charcoal from Cast and Life; MISS M. L. FIELD, Elements of Psychology, Principles and Methods of Teaching, History of Education, Outlining Course of Drawing for Public Schools.

In submitting the seventeenth annual report of the State Normal Art School, covering the year 1888-89, the Board of Visitors is gratified in saying that it has been a year of marked progress in the work of the school. In most of the departments there has been attained such a measure of excellence as sincere devotion to duty naturally secures; and the general quality of the work transcends that of any former period.

Nor does the public fail to appreciate the opportunities which the school offers, as attested by a steady increase in numbers.

There were in attendance during the year ending June, 1887, 154 pupils; 1888, 187 pupils; 1889, 200 pupils.

The number who have already entered the school this year is above 200, and promises considerable increase during the remainder of the year.

Of the total number for the year ending June, 1889, 155 were women; 45, men. Of the 200 already entered this year, 162 are women, and 38 are men.

Of the parents of students, 40 had deceased, those of 9 had retired from business. The occupations of the others were as follows:

manufacturers, 11; farmers, 9; builders, 7; mechanical engineers, merchants and clergymen, 5 each; book-keepers, school-teachers, dentists and piano makers, 4 each; engravers, wine merchants, grocers, commission merchants, physicians, boot dealers, painters and machinists, 3 each; real estate dealers, music teachers, furriers, masons, marble dealers, lawyers, provision dealers, cutlers and agents, 2 each; U. S. examiners, inventors, superintendents, tuners of musical instruments, genealogists, undertakers, meat dealers, watch makers, custom-house officers, pressmen, and forty others, 1 each. Total, 200.

The distribution of residences by counties was as follows: Berkshire, 1; Middlesex, 53; Suffolk, 86; Essex, 12; Norfolk, 15; Worcester, 11; Bristol, 4; Hampshire, 3; Hampden, 3; Plymouth, 3.

The remaining students were from other States, as follows: Kansas, 1; District of Columbia, 1; Virginia, 1; Nebraska, 1; Iowa, 1; New Hampshire, 1; Missouri, 1; Georgia, 1; Pennsylvania, 1. Total, 200.

Certificates were awarded June, 1889, as follows: Class A, 37; Class B, 24; Class C, 5; Class D, 7; total, 73. Diplomas A, B and D, 7; diplomas A and C, 5; total, 12. Diplomas, Public School Class, 14.

Students have been appointed to positions since September, 1888, as follows: Boston, East Boston, Roxbury and Somerville evening schools, 4; Brooklyn, N. Y., 1; Haverhill, Mass., 1; Brockton, 2; Watertown, 1; Medford, 1; Newton, 1; Attleborough, 1; Woburn, 1; Massachusetts Normal Art School, 3; Gloucester, 1; Minneapolis, Minn., 1; Chicago, Ill., 1; Framingham and Melrose, 1; Elementary Manual Training School, 1. Total, 21.

At the close of the year, Mr. W. F. Brackett, after many years of service, and also Mrs. A. M. Rydingsvård, resigned their positions in the school.

The following gentlemen have been added to the corps of instructors:—

Mr. George Jepson, a skilled machinist, who for many years has been the principal of the city mechanical evening drawing school, has been appointed to teach the following subjects: geometry, orthographic projection, projection of shadows, descriptive geometry, elementary and advanced machine drawing. Mr. Henry H. Kendall, who succeeded Professor Ware, in the early days of the art school, as instructor in building construction and architectural design, and resigned the position in 1878 to accept an appointment in the government archi-

tect's office at Washington, D. C., which position he held for eight years, the greater portion of the time being the head draughtsman of that department, has now returned to Boston, and has been again secured to the school as instructor in building construction and architectural design. Mr. J. Frisbee, the only teacher of ship draughting in the city of Boston evening drawing schools and the South Boston School of Art, is now giving instruction in ship draughting in the Normal Art School.

The room occupied last year by the life class proved unsatisfactory, especially as regards light. Arrangements have been made for the class, therefore, in another part of the building; and, at the request of the city, whose committee was seeking temporary accommodations for a kindergarten class, the room has been granted for its occupancy.

After occupying all available room for studio work, great inconvenience was experienced by the school for the lack of more space last year, and the inconvenience is likely to prove still greater during the current year. This deficiency may be supplied by finishing a room over Class A hall, at an expense not exceeding \$3,000. The visitors would strongly urge an appropriation for this purpose.

At the close of the school year, it chanced that several of the members of the Board of Visitors were unable to be in attendance on the exercises, which were admirably presided over by Mrs. Wells, whose services gave great satisfaction. The exercises were of the usual character, and were pronounced by the members present to be an improvement upon those of all former occasions.

The ends for which the school was established appear to be furthered in a very satisfactory degree. Education in industrial art has been quickened in all the more populous portions of the State. The demand for better instruction is greatly increasing. This demand the school as a whole is doing much to answer. The State agent for the promotion of industrial drawing, Mr. Henry T. Bailey, a graduate of the school, and in sympathetic co-operation with it, is greatly aiding the teachers and schools in their efforts to conform to the laws of the Commonwealth on this subject. He well stated his plan of work in his first annual report, as follows: "To harmonize,

so far as possible, the instruction in those places where drawing is already taught; to advocate the objective method of teaching it; and to endeavor to lead those towns not complying with the law to see the value of industrial drawing, and to make it one of the regular studies in their public schools."

A. A. MINER,

Chairman.

FIFTY-THIRD ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

SECRETARY'S REPORT.

To the Board of Education.

I respectfully present herewith the fifty-third annual report of the Secretary.

SUMMARY OF STATISTICS FOR 1888-89.

Number of cities and towns: cities, 25; towns, 326.

All have made the annual returns required by law.

Number of public schools,	7,023
Increase for the year,	105
Number of persons in the State between the ages of 5 and 15, May 1, 1888,	367,785
Increase for the year,	8,281
Number of pupils of all ages in all the public schools during the year,	363,166
Increase for the year,	5,166
Average membership of pupils in all the public schools during the year,	299,537
Increase for the year,	5,596
Average attendance in all the public schools during the year,	270,851
Increase for the year,	6,128
Per cent. of attendance based upon the average membership,	90
Number of children under 5 years of age attending the public schools,	1,130
Decrease,	48
Number of persons over 15 years of age attending the public schools,	30,758
Increase for the year,	1,215
Number of persons employed as teachers in the public schools during the year: men, 901; women, 9,222; total,	10,123
Number of teachers required by the public schools,	8,753
Number of teachers who have attended normal schools,	3,373
Increase for the year,	127
Number of teachers who have graduated from normal schools,	2,689
Increase for the year,	12
Average wages of male teachers per month in public schools,	\$108 88
Decrease,	\$10 46
Average wages of female teachers per month in public schools,	\$45 93
Increase,	\$1 05
Aggregate of months all the public schools have been kept during the school year,	63,624-9

Average number of months the public schools have been kept for the entire year,	8-11
Number of high schools,	236
Number of teachers in high schools,	756
Number of pupils in high schools,	24,139
Amount of salaries paid to principals of high schools,	\$302,209 14
Evening schools: number, 240; kept in 51 cities and towns.	
Number of teachers, 876; whole number of pupils, 23,632;	
men, 17,208; women, 6,424; average attendance, 12,598;	
expense,	127,942 05
Amount raised by taxation for support of public schools, including only wages of teachers, fuel, care of fires and school-rooms,	5,366,605 29
Increase for the year,	\$252,202 88
Expense of supervision of the public schools,	214,097 43
Salaries of superintendents included in the above,	101,324 90
Expense of preparing and printing school reports,	13,299 87
Expense of sundries, — books, stationery, maps, charts, etc.,	427,155 56
Amount expended in 1888-89 for new school-houses,	614,508 54
Amount expended for alterations and permanent improvements in school-houses,	196,256 28
Amount expended for ordinary repairs,	496,563 48
Amount of voluntary contributions to public schools,	1,878 79
Amount of local school funds, the income of which can be appropriated only for the support of schools and academies,	2,401,194 15
Income of local funds appropriated to schools and academies,	113,774 69
Income of funds appropriated for public schools at the option of the town, as surplus revenue, tax on dogs, etc.,	95,311 19
Income of State school fund paid to cities and towns in aid of public schools for the school year 1888-89,	62,924 04
Of this amount there was appropriated for apparatus and books of reference,	3,770 37
Aggregate returned as expended upon public schools alone, exclusive of repairing and erecting school-houses,	6,203,390 55
Of the above, to each child in the State between 5 and 15 years of age,	16 87
Including in the aggregate above the expense of repairing and erecting school-houses, the sum is	7,510,718 85
To each child in the State between 5 and 15 years of age,	20 42
Percentage of valuation of 1888 appropriated for public schools, including only wages of teachers, fuel, care of fires and school-rooms, . . . . .	.002 $\frac{69}{100}$
Percentage of valuation of 1888 appropriated for public schools, including all the items in the last aggregate above, . . . . .	.003 $\frac{76}{100}$
Number of academies,	89
Whole number of students for the year in academies,	16,043
Amount of tuition paid,	\$392,084 92
Number of private schools,	396
Whole number of pupils attending for the year,	37,620
Estimated amount of tuition,	\$605,118 79

SCHOOL ATTENDANCE.

The compulsory school laws of the Commonwealth require all the children of the State between the ages of eight and fourteen to attend some public day school, or some private school approved by the school committee, for at least twenty weeks every school year. The number of children between five and fifteen forms the basis on which a portion of the income of the school fund is distributed.

The number of children between five and fifteen years of age in the State May 1, 1888, was 367,785. This is an increase over the number in 1887 of 8,281.

Table showing the annual increase in the number of children from five to fifteen years of age in the State from May 1, 1879, to May 1, 1888.

	Increase.		Increase.
1879,	3,485	1884,	7,615
1880,	5,359	1885,	5,093
1881,	8,697	1886,	4,149
1882,	8,082	1887,	6,452
1883,	6,736	1888,	8,281

The average increase for ten years from 1879 is 6,397. There is considerable variation in the increase, year by year, without any apparent ratio to the increase in population. Thus the increase in 1879 was 3,485, in 1881 it was 8,697, which is the year having the largest increase, with one or two exceptions, ever returned. The increase for 1888 is almost as great. This is about twice as large as for the year 1886, and is 1,884 above the average for the ten years. These variations present the occasion for the suggestion that upon the accuracy of statistics much of their value depends.

The number of children of all ages in attendance upon the public schools during the year was 363,166. This is an increase over the number for the previous year of 5,166.

A table follows showing the increase and decrease in the number of different pupils of all ages in the schools for the successive years from 1879 to 1888; also the increase and decrease for this period of those under five and over fifteen years of age :—

Annual Increase and Decrease in Membership of Pupils in all the Public Schools.

	All Ages.	Under 5 Years.	Over 15 Years.
1879,	Decrease, 4,751	Decrease, 101	Decrease, 2,583
1880,	Increase, 5,359	Decrease, 148	Decrease, 676
1881,	Increase, 5,182	Decrease, 39	Decrease, 1,146
1882,	Increase, 5,451	Decrease, 30	Increase, 596
1883,	Increase, 6,140	Decrease, 99	Increase, 974
1884,	Decrease, 2,298	Decrease, 52	Increase, 730
1885,	Increase, 9,903	Decrease, 32	Increase, 2,474
1886,	Increase, 3,744	Decrease, 58	Increase, 996
1887,	Increase, 4,639	Decrease, 197	Increase, 575
1888,	Increase, 5,166	Decrease, 48	Increase, 1,215
Average increase for 8 years, 5,698		Average, 80	
Average increase for 10 years, 3,853			

With the exception of the years 1879 and 1884, the returns for ten years show an annual increase in the membership of the schools; the average increase for this period being 3,853; omitting the years cited, the average increase for the remaining eight years is 5,698. Comparing the present membership with that for the year 1879, the ratio of increase has been .1465, which corresponds precisely to the increase in the population of the State by the census returns of 1875 and 1885.

The returned number of children of all ages in all the schools, when compared with the number returned between five and fifteen years of age, is found to be less than the latter by 4,619.

Moreover, if we deduct from the total membership those attending school under five and those over fifteen years, the difference is much greater, amounting to 36,507.

To account for this, we have a considerable number of children who are kept in the kindergarten till seven or eight years of age, others that receive their early instruction at home, and still others that cease to be members of the schools at the age of fourteen, or as soon as the compulsory laws release their hold upon them. Again, we have returned as belonging to academies and private schools, 53,663; Suffolk County alone making a return of 14,766 pupils in these two classes of schools.

The parochial schools have withdrawn considerable numbers from the public schools. The returns from these swell the numbers attending private schools, this being the term under which they are included in the returns from the school committees to this Board. The statistics from the private schools, and particularly from this class of private schools, are less carefully collected than those from the public schools. On the other hand, many pupils, it is well known, attend the academies and private schools who are not enrolled among the children of the State; so that it is evident no comparison of membership in the public schools with the number of those between five and fifteen will definitely indicate the school spirit of the people. That the ratio of increase in the membership is keeping pace with that of the increase of population, taking into account all the attendant circumstances, is evidence that there is no weakening of the public sentiment in their favor.

The returns for ten years show a uniform decrease in the number of children in school under five years of age, the average being 80 per year. The whole number of pupils attending school under five years of age in the State is 1,130. This indicates a prevailing sentiment in favor of deferring the entrance upon the primary school work till a later age. With the course of study as it has been in the past, this is a wise plan; but, with the introduction of kindergarten methods into our public instruction, children can be profitably introduced to the school training at an earlier age than five years.

For the past seven years there has been a uniform increase in the number of children attending school over fifteen years of

age, the number having reached 30,758. The large proportion of this increase is in the high schools. In this item of our statistics there was a decrease for the three years previous to 1882; since that time the increase has averaged 1,080, and for the last four years 1,315, — a significant fact, as bearing upon the free text-book law, which was enacted in 1884.

In 1879 a sheet called the enrolment sheet was inserted in the school registers furnished to the schools. This was for the purpose of keeping in each school, for the use of the committees in making up their annual returns, a distinct list of all the pupils who had attended no other school in the town during the year. By taking the sum of the names upon the enrolment sheets, the whole membership of the schools in a town is at once ascertained, and from this the average membership. The average membership for the year 1888 is 299,537. The item being a new one with the year 1879, the increase can be shown only for the subsequent years. Previous to that year the average attendance and the per cent. of attendance were based upon the average number belonging, which basis usually counted some of the pupils more than once.

The following table shows the average membership, with the yearly increase; also the average attendance, the yearly increase, and the ratio of attendance for ten years, from 1879 to 1888:—

Average and Increase of Membership in the Public Schools. — Average and Per Cent. of Attendance.

				Average Membership.	Increase of Average Membership.	Average Attendance.	Increase and Decrease of Average Attendance.	Ratio of Attendance to Membership.
1879,	.	.	.	.	.	233,127	Decrease, 1,122	.89023+
1880,	.	.	.	Average belonging, 261,247	—	233,108	Decrease, 19	.88961+
1881,	.	.	.	Average belonging, 262,031	784	235,739	Increase, 2,631	.88813+
1882,	.	.	.	Average membership, 265,442	3,411	242,043	Increase, 6,304	.89469+
1883,	.	.	.	Average membership, 270,531	5,089	248,168	Increase, 6,125	.89510+
1884,	.	.	.	Average membership, 277,241	6,710	253,955	Increase, 5,787	.90005+
1885,	.	.	.	Average membership, 282,154	4,913	260,088	Increase, 6,133	.90108+
1886,	.	.	.	Average membership, 288,640	6,486	262,159	Increase, 2,071	.89922+
1887,	.	.	.	Average membership, 291,539	2,899	264,723	Increase, 2,564	.90057+
1888,	.	.	.	Average membership, 293,941	2,402	270,851	Increase, 6,128	.90423+
				Average membership, 299,537	5,596			
				Av., 4,688			Av. Inc. for 8 yrs., 4,717.	

The average membership and the average attendance have made a constant advance for the past eight years, the average increase in the former being 4,688, in the latter 4,717. The increase in membership for the year 1888 was 5,596; in attendance it was 6,128. The total increase, however, for the same period, shows a ratio slightly less than the ratio of increase in population from 1875 to 1885, and to the ratio of the increase of the whole number of all ages attending the schools; the ratio of increase in the average membership is .1284, while the ratio of increase of attendance is .1392, as against a ratio of increase in population of .1465.

One cause for this relative decline may be found in the withdrawal of children to attend the parochial schools, the present number now attending these schools being estimated at about 40,000. It is well known that, as the population tends to concentrate in cities and large villages, there is an increase in the temptations which lead youth earlier to leave school, and begin an apprenticeship for business. It is, moreover, evident that the decline in membership and attendance in the small schools of the poorer towns is found to be greater than in the better-organized schools of the populous centres. As the form of supervision improves, and the means are provided for this class of towns to employ trained teachers, the ratio of attendance will improve.

The ratio of attendance to membership has reached .90423, which is one-third of one per cent. higher than in any previous year. In the past eight years, with one exception, there has been an annual increase. The increase is much greater in the towns having large, well-graded schools, though the towns of every class have contributed to the increase.

Eighteen towns have reached a per cent. of attendance above 95, the three highest being Brockton, Dunstable and Nantucket, each of which has 98 per cent. The following is the list of towns whose percentage of attendance for the year 1888 was above 95:—

TOWNS.	Per cent.	TOWNS.	Per cent.
Brockton,	98	Adams,	95
Dunstable,	98	Boxborough,	95
Nantucket,	98	Canton,	95
Gloucester,	97	Foxborough,	95
Monterey,	97	Lexington,	95
Amherst,	96	North Adams,	95
Bernardston,	96	Quincy,	95
Marlborough,	96	Warwick,	95
Mendon,	96	West Stockbridge,	95

Fifteen fell below an average of 80 per cent., Mt. Washington reporting 64. These fifteen towns are given below : —

TOWNS.	Per cent.	TOWNS.	Per cent.
Mount Washington,	64	Burlington,	77
Gosnold,	67	Longmeadow,	77
Pelham,	72	Sheffield,	77
Gay Head,	72	Southwick,	77
Amesbury,	73	Douglas,	78
Eastham,	75	Mashpee,	78
Plainfield,	76	Freetown,	79
Monroe,	76		

The great disparity in regularity of attendance in these two classes of towns doubtless results in some degree from circumstances over which the authorities and the parents have no control ; but, as a general rule, a per cent. of attendance much below 90 leads to the suspicion that proper vigilance has not

been exercised, while a per cent. below 85 denotes culpable neglect in the school officials or the parents, one or both.

The difference in the manner of estimating membership and recording absences in different towns, affects somewhat the result. In one city the amount of tardinesses and the periods of dismissal are counted as absence; when these amount in any instance to a half day, a half day is deducted from the pupil's attendance. A few instances have been discovered in which a pupil bringing a request from the parent for dismissal is counted as present, though his absence covers the entire school session. Such cases are believed to be rare, and there is no excuse or palliation for their existence. The absence is a fact; the excuse in no way affects the fact. The ambition to approach perfection in attendance is laudable, the results to the pupil and the school prompt to vigilance in the teacher; but only harm can come from a record which is in violation of the truth.

Again, in some towns, the continuous absence of a pupil, though it extends through the term, if he simply enters, does not affect his membership. In other towns, if a pupil is absent for a certain time, — for a month in some, for five days in others, no regard being had to the cause, — the pupil ceases to be a member. The "five-days" rule prevails in many towns and cities. In many towns there is no prescribed rule. Uniformity is desirable; the "five-days" rule is evidently growing in favor, and is recommended for adoption.

Notwithstanding the difference in methods of making up this item of our statistics, the returns upon which the percentages are based are in the main the same, and the results are sufficiently accurate to entitle them to confidence for the purpose of general comparison. All observation shows that the ratio of attendance usually indicates the school spirit of the town, as it very directly affects the quality of the instruction; and the reverse of this proposition is equally true.

TEACHERS.

There is an annual increase in the number of public schools. The present number in the State is 7,023, an increase of 105 over the number reported the previous year. There is a cor-

responding increase in the number of teachers, the total number being 10,123.

The ratio of the increase of the number of different teachers employed in the schools in ten years is .1777; that of the different teachers required for all the schools is .2046. This shows that the tenure of the office of teacher is making a gain. The gain, however, is in favor of cities and towns having the wealth to command professional teachers, and against the poorer towns. Here the change of teachers is a constant and troublesome factor in the school problem. It is hoped we may in time cancel this factor by the introduction of skilled teachers into the office of superintendent for this class of towns.

The following table shows the number of teachers, male and female, employed during the last ten years; their wages per month, with the increase and decrease of the same; also the number of normal teachers, with their annual increase.

Number of Teachers employed, with Teachers' Wages, from 1879 to 1888.

	TEACHERS.		WAGES, PER MONTH.				NORMAL TEACHERS.			
	Male.	Female.	Male.	Increase and Decrease.	Female.	Increase and Decrease.	Attended Normal Schools.		Graduates.	
1879, . .	1,133	7,462	\$67 54	Increase, \$0 10	\$30 59	Increase, \$2 90	2,228	—	1,911	—
1880, . .	1,134	7,727	85 54	Increase, 18 00	38 49	Increase, 7 90	2,236	Increase, 8	1,831	Increase, 20
1881, . .	1,079	7,858	102 90	Increase, 17 36	32 32	Increase, 4 17	2,416	Increase, 180	2,037	Increase, 106
1882, . .	1,038	8,197	103 33	Increase, 43	41 90	Increase, 7 58	2,581	Increase, 165	2,155	Increase, 166
1883, . .	1,058	8,340	108 02	Increase, 4 69	44 18	Increase, 2 28	2,744	Increase, 163	2,240	Increase, 85
1884, . .	1,061	8,460	120 72	Increase, 12 70	43 85	Decrease, 33	2,866	Increase, 122	2,392	Increase, 152
1885, . .	1,060	8,610	111 23	Decrease, 9 49	43 97	Increase, 12	3,003	Increase, 137	2,420	Increase, 28
1886, . .	1,033	8,696	116 85	Increase, 5 62	44 93	Increase, 96	3,134	Increase, 131	2,533	Increase, 113
1887, . .	1,010	8,887	119 34	Increase, 2 49	44 88	Decrease, 05	3,246	Increase, 112	2,677	Increase, 144
1888, . .	901	9,222	108 88	Decrease, 10 46	45 93	Increase, 1 05	3,373	Increase, 127	2,689	Increase, 12

The above table shows that for ten years the number of male teachers has constantly decreased, while the number of female teachers has as constantly and more largely increased. The wages of both have advanced during the same period; those of females from \$30.59 to \$45.93 per month, those of males from \$67.54 to \$108.88. The wages of male teachers for 1888 fell below those for 1887 by \$10.46, while those for female teachers advanced \$1.05. This advance in the wages of teachers has not kept pace with the advance in wages paid to persons employed in other professional work, or in occupations requiring special skill in the workman. The standard of qualifications for teaching has considerably advanced in ten years, so that the demand for men and women fitted to take important positions far exceeds the supply. As a consequence, women of experience are now called to positions formerly occupied by men who taught for a brief term to obtain pecuniary aid in preparing for other pursuits. The policy is doubtless as wise in many instances as it is economical, but the small proportion of male teachers is certainly to be deplored.

The proportion of teachers who have attended the State normal schools shows a gratifying increase year by year. While the number of teachers annually employed has advanced 17 per cent. and the school population less than 15 per cent. in ten years, the number teaching who have attended normal schools for longer or shorter periods has advanced 51 per cent., and the number who have graduated and are teaching is 40 per cent. greater than in 1879. Nor does the influence of the normal graduate terminate with pupils in his own school; some of these become in time themselves teachers, to teach after his methods, and with the inspiration caught from his enthusiasm. Teachers who are not trained observe the normal teacher, discover from him some of the obvious principles of teaching; they incorporate into their own work the methods they have discovered by observation. Thus the normal teachers are exerting a constantly widening influence. It is evident that the drift of the normal teachers is towards the more wealthy and populous towns and cities. Either the number of normally trained teachers must be largely increased, or some other means must be invented for the training of teachers employed in the towns having small schools and a sparse population.

HIGH SCHOOLS.

There has been an increase of 6 high schools during the year, the whole number being 236. The following is a table showing the number of high schools in the State for ten years, with the number of pupils enrolled :—

	Schools.	Pupils.		Schools.	Pupils.
1879, . . .	215	18,758	1884, . . .	224	20,489
1880, . . .	215	18,900	1885, . . .	224	21,370
1881, . . .	221	19,256	1886, . . .	229	22,406
1882, . . .	226	18,423	1887, . . .	230	22,785
1883, . . .	228	20,012	1888, . . .	236	24,139

According to the census of 1885, our population was 1,940,-067. Of this, 1,806,178, or 90 per cent., have high schools in their own towns. These are distributed among the counties as follows :—

COUNTIES.	No of—		Ratio of Popu- lation without High Schools.	COUNTIES.	No of—		Ratio of Popu- lation without High Schools.
	Towns.	High Schools.			Towns.	High Schools.	
Barnstable, .	15	10	.135	Hampshire, .	23	12	.209
Berkshire, .	32	12	.238	Middlesex, .	54	47	.033
Bristol, . .	20	11	.082	Nantucket, .	1	1	.000
Dukes, . . .	6	1	.718	Norfolk, . .	27	24	.026
Essex, . . .	35	27	.037	Plymouth, .	27	16	.141
Franklin, . .	26	9	.176	Suffolk, . .	4	13	.008
Hampden, . .	22	9	.131	Worcester, .	59	44	.071

The number of towns not having high schools is 134. While they constitute one-third of the whole number, they contain, as is apparent, less than one-tenth of the population. The ratio

of the population not having high schools in their own towns, by counties, is found to present the greatest contrasts in Nantucket and Dukes; the former having no pupils not provided for, while the latter shows .718 of the population to be without a high school. A marked contrast exists also between Suffolk and Berkshire, the former providing high-school instruction to all but .008 of the population, the latter to all but .238 of the population. Some of the towns — Revere in Suffolk County is one of them — make provision for the tuition of their high-school pupils in the neighboring towns. Some of the towns have a good substitute for the high schools in the incorporated academies. This leaves but a small number of pupils to be provided for at personal expense; so that, in reality, very few of the people who desire high-school training for their children are at serious inconvenience to secure it.

LENGTH OF SCHOOLS.

The schools have kept an average of eight and eleven-twentieths months during the year. This is a slight increase upon the time for the previous two years. It is required by law that all the schools be kept for six months, and that the high schools be kept for ten months. Four towns have failed to keep their schools an average of six months, while fifteen have just reached the limit. One of these is in Worcester County, one in Dukes, two are in Middlesex, three in Hampshire, four in Berkshire, and eight in Franklin. The remaining 332 towns exceeded the limit, from an average of five days to an average of four months; thirty-one having kept an average of ten months, while two — New Bedford and Newburyport — each kept for ten and ten-twentieths months.

Nothing shows more conclusively than these statistics the struggle it is for the poorer towns to meet the provisions of the law which requires the schools to be maintained for a certain period of time, and nothing more forcibly indicates the disproportion in the tax put upon different municipalities in the State that they may comply with its conditions.

EVENING SCHOOLS.

Fifty-one cities and towns have maintained evening schools, to the number of 240 — an increase of 26 over last year. The

average number in attendance was slightly diminished from that for the previous year, while the per cent. of attendance was somewhat increased. The attendance in general is far from satisfactory. The whole number of pupils in attendance was 23,632, of whom the great proportion, 17,208, were males. The effect of the law prohibiting the employment of illiterate minors has evidently been to increase the attendance of adult males. As the increasing number attending the evening schools calls for better organization and for larger appropriations, the membership is receiving more thoughtful consideration. The opinion is gaining ground that the main purpose of these schools is served when provision is made for illiterate adults and for youth who have failed to get the benefit of good grammar schools; that they are not a substitute for, nor supplementary to, the public day schools. This does not contemplate placing a limit to evening-school instruction in towns and cities of large population and abundant means. It is as much a prudential as it is an educational consideration. The discrimination in favor of the classes of pupils named affords a partial explanation for the reduced numbers attending the evening schools. There is no lack of interest in the important work they are doing, nor unwillingness on the part of the towns to give them a cordial support.

AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS.

The returns show that the amount raised by taxation for the support of schools, including only wages of teachers, janitors' services, and cost of fuel, was \$5,366,605.29, which is an increase of \$214,097.43 for the year.

The following is a table showing the appropriations and expenditures from 1879 to 1888:—

Appropriations and Expenditures from 1879 to 1888.

	Amount raised by taxes for wages of teachers, janitors and fuel.	Amount received from all sources, exclusive of appropriations for buildings and repairs.	For each child in the State between 5 and 15 years of age.	Whole amount expended for all school purposes.	For each child in the State between 5 and 15 years of age.	Ratio of valua- tion appropri- ated to public schools.
1879,	\$4,062,562 74	\$4,540,862 63	\$14 163	\$5,163,404 76	\$16 80	.00326
1880,	4,130,714 11	4,851,566 55	15 516	5,776,541 75	18 474	.0035
1881,	4,144,722 42	4,899,670 64	15 245	5,881,223 54	18 299	.0035
1882,	4,339,378 12	4,948,777 11	15 02	5,813,186 02	17 64	.00345
1883,	4,524,371 03	5,180,661 93	15 40	6,502,359 24	19 34	.00375
1884,	4,675,882 44	5,631,584 62	16 38	7,020,430 00	20 42	.00399
1885,	4,817,429 01	5,676,969 08	16 28	7,151,075 38	20 44	.0041
1886,	5,059,939 43	5,857,321 00	16 59	7,000,083 52	19 82	.00378
1887,	5,114,402 41	5,934,198 59	16 50	7,087,206 42	19 71	.00366
1888,	5,366,605 29	6,203,390 55	16 87	7,510,718 85	20 42	.00376

This table shows an increase in appropriations and expenditures from year to year, and in most years the ratio is slightly larger than the ratio of the increase in population and in the total membership of all the schools. Taking the increase in the ratio of the valuation appropriated for all school purposes, the increase in ten years is five hundredths of one per cent. As this is based upon the valuation of the census of 1885, it doubtless somewhat exceeds the exact increase in the ratio. With a higher standard of teaching, wages and all the appliances for teaching necessarily increase. With our advancing civilization, buildings more ample, better lighted, heated and ventilated, better appointed in every way, are demanded.

Two items of increased expense are incident to the more complete organization and more efficient management of the schools; these are for transporting children to the schools, and for school supervision. Both have for their object the making of a more direct application to the children of the means of education.

For the transportation of children, there was expended during the year the sum of \$22,118.38. The operation is not simply a financial gain; its great value consists in abolishing profitless schools, and in placing the children in schools continued for a longer term, and under instructors of more experience and skill.

The expense of the supervision of the schools amounts to \$214,097.43, of which \$101,324.90 is paid to school superintendents. Seventy-four and two-tenths per cent. of the whole school population is at present under supervision by superintendents; a few are nominal superintendents, doing the work of school committees. Among the many are found the efficient cause of the recent great advance in the spirit and methods of instruction. Where the superintendents prove themselves to be experts in their profession, and succeed in making the other appropriations add vigor to the work of the schools, the increasing sum paid to these officials is the wisest economy.

The expenditure for books and supplies, under the free textbook law, increases the aggregate expenses returned by the towns. This item amounts for the year to \$427,155.56. Though this largely increases the public tax, it entirely relieves individuals of what formerly proved to many a heavy burden;

and, while it contemplates a more abundant supply to the individual, it makes a large saving to the public as a whole. If the three items to which reference has been made continue to increase with the reasonable demand, they will be still greater in the years to come. They are in accord with the purpose of the people of the Commonwealth, to provide all necessary means to give the greatest efficiency to the public schools.

The summary of statistics and the inferences drawn from it, furnish a guide to school legislation and to efforts that should be made to perfect our methods of public instruction. The tables of comparison of the present with the past, show the progress we are making in the better administration of our public schools, and enable us to appreciate more fully their present condition.

SPECIAL SCHOOLS.

In compliance with the Act of 1867, chapter 311, section 3, I respectfully submit the following statistics of the attendance and expenses of the Massachusetts pupils in the several schools for the deaf, the blind and the feeble-minded in the Commonwealth.

American Asylum at Hartford, Conn.

Number of Massachusetts pupils during school year,	63
Number of Massachusetts pupils admitted during year,	12
Number in the school Jan. 1, 1890,	51

Clarke Institution, Northampton.

Number of Massachusetts pupils during the school year 1888-89, . .	79
Number of pupils admitted the present year,	28
Number of pupils present Jan. 1, 1890,	95

Horace Mann School, Boston.

Number of Massachusetts pupils during the school year 1888-89, . .	73
Number admitted during the year,	20
Number in the school Jan. 1, 1890,	83

AMERICAN ASYLUM.

During the year ending Dec. 1, 1889, Massachusetts had sixty-four pupils in attendance at the American Asylum. The year was one of general prosperity and steady progress. This school has been remarkably fortunate during all its history in

being able to retain its teachers during long periods of service, and experience added to skill has enabled it to produce excellent results. It is a misfortune to any school to have frequent changes in its corps of teachers, but nowhere else are such changes so injurious as in special schools for the deaf and blind.

The pupils of this school devote five hours a day to work in the school-rooms, and three hours a day to learning a trade in the shops. Thus brain and hand are trained simultaneously, —the one to qualify the deaf for easy communication with society, the other to make them self-supporting and independent.

Every child is afforded an opportunity to acquire a good common-school education; but the one supreme aim, running through all studies, and more important than any other one thing, is the acquisition of a free and easy use of the English language. It is the most difficult task that the deaf child has to accomplish, and must be pursued persistently from the beginning to the end of the school course. So, whether the child be studying geography, history, physiology or hygiene, first and foremost it must be a study of language; and, though the ideas must be mastered and held, the ability to express the ideas in clear and correct language is still more important to the deaf pupil. With this end in view, the recitations are conducted chiefly in writing, and all examinations are so conducted.

Articulation and lip-reading for the past few years have received constantly increasing attention; and now every child entering the school — the congenitally deaf as well as the semi-mute and the semi-deaf — receives daily instruction in those branches from skilled and experienced teachers, and in a majority of cases the instruction is continued through the school course.

This was the first manual school to make use of Bell's System of Visible Speech as an aid in teaching deaf-mutes to speak. Mr. Alexander Graham Bell spent the months of May and June, 1872, in our school, in introducing the system and in training teachers to give instruction in it.

Of late years more attention has been given to articulation and lip-reading, and their field has been broadened. The more progressive schools of the country, while holding fast to all that is good in the old, have settled upon the policy of giving all new pupils a thorough and prolonged test, under special teachers, as to their ability to acquire speech and lip-reading. It is believed that intelli-

gible speech, even if imperfect, is valuable, and that it should be given to every pupil who can acquire it, even at a partial sacrifice of development in other directions, which will require an addition of one or two years to the time now allowed for the school course, in order to make good the loss.

Of the pupils received into this school during the last four years, seventy-four per cent. have given sufficient promise of success in acquiring speech and lip-reading to warrant their continued daily instruction in those branches. Of those thus taught, forty-seven per cent. were born deaf, fourteen per cent. lost hearing under two years of age, twenty-four per cent. lost hearing between the ages of two and four years, and fourteen per cent. lost hearing after the age of four years.

When schools for the deaf were first established, many of the pupils remained at school but two years; in 1825 the length of the school course was fixed at four years; ten years later the regular term was extended to five years.

As time has passed, on the necessities of the case have been appreciated better, and the period of instruction has gradually been increased. Massachusetts now allows ten years to every one of its deaf children, and within a year has passed a law giving power to the Governor to extend the time beyond that limit in the case of meritorious pupils, "recommended therefor by the principal or other chief officer of the school in which they are members." In the rest of New England the State authorities have discretionary power to extend the time to about the same limit; yet one more step in advance is needed, viz., to grant the same privileges to the deaf child that are accorded to his hearing brothers and sisters, — to enter school as soon as he is old enough, and remain until his education is completed, including the kindergarten, the primary school, the grammar school, and speech and lip-reading. The necessities of the child, and not the imperfect appreciation of law-makers and constantly changing State officials, should determine the allowance of time.

It is interesting to notice the change in the age of pupils at admission since the early years of our school. On examination of the records, I find that of the first one hundred pupils only *eight* were under *ten* years of age when they began their school course, *fifty-three* were *sixteen* years of age or over, *forty-two* were *eighteen* years of age or over, *fifteen* were over *twenty-five* years of age, and *one* had reached the age of *fifty*.

Of the last one hundred admitted, *forty-eight* were under *ten* years

of age, *nine* were over *sixteen* years of age, and only *four* had passed the age of *eighteen*. *One* had reached the age of *twenty-seven*.

The average age of the first one hundred pupils at admission was 17.91 years; the average age of the last one hundred at admission was 10.77 years, — a gain of 7.18 years in the right direction.

The mind, if left too long unused, becomes stiff and unpliant, and, in most cases of congenital deafness and of hearing lost before verbal language has been acquired, it is very difficult to bring the verbal memory to any satisfactory degree of cultivation, when the education is not begun before the age of sixteen or eighteen. There is danger, however, of carrying the reform too far in this direction, unless the time for instruction can be increased. There is constant pressure to get children into school at six or seven years of age, or even younger than that. If the time were unlimited, so that two, three or four years, as the case might be, could be devoted to kindergarten work as preliminary to the regular school course, it might be well to receive pupils at six years of age. But, when the school period is limited to eight or ten years, it is a decided loss to a deaf child (except in cases of loss of hearing, where there is danger of losing speech also) to be sent to school before it is eight or ten years of age. Up to that age the child is too young to apply itself diligently to study without injury, and the years in school before that are comparatively lost years. At that age the child may begin to apply itself to advantage. The mind has not yet lost its pliability, and there is sufficient physical stamina to endure the mental strain required. To secure the best results in mental discipline and scholarly acquirements where the school period does not exceed ten years, pupils should not enter school under eight years of age, nor should the time of admission be deferred beyond the age of twelve.

Moreover, mental discipline and acquirements are but a part of the good to be derived from our school course. Manual training is an essential part of school training for deaf-mutes. For their future welfare it is not only essential that they should form habits of industry, but that every boy should learn how to care for and use tools, and acquire at least the rudiments of a trade, that he may be able to compete successfully with those favored with hearing.

Very early in the history of this school this need was recognized, and a plan was adopted of making manual training an essential part of the education of its pupils. Instruction in this new department was begun in 1822, and in the following year two large and convenient workshops were erected. From that day to this manual training has been a part of the instruction of every able-bodied boy — rich and poor alike — passing through his school course here. Our former pupils are now at work as cabinet-makers, carpenters, furniture-

makers, in many other capacities where wood-working tools are used, and in a variety of occupations which the training of eye and hand, and of the judgment, here has fitted them to take up successfully. The addition of type-setting to the trades now taught would be a forward step which ought to be taken. This is now taught in about half the schools in the country, and has proved a profitable occupation for a certain class of deaf-mutes.

The plan of manual training first put in operation here has been adopted by nearly every school for deaf-mutes in the country, and to it may be attributed in no small degree the fact that a deaf-mute pauper or vagrant from among graduates is rarely found; though impostors not infrequently assume the role of deaf-mutes, that they more readily may work upon the sympathies of the public, and so procure the means of living without labor. As a class, the country through, deaf-mute graduates are honest, industrious, thrifty and respected citizens, and not a few of them have brought up families of hearing children who have risen to positions of influence and honor.

If boys are to take up manual training as soon as they begin school, as now seems necessary, they should not enter school too young. This principle has always been recognized in the management of our school.

CLARKE INSTITUTION.

The deaf children of the Commonwealth and their parents are to be congratulated upon recent legislation which empowers the Executive of the State, upon a request of parents, and with the approval of the Board of Education, to prolong the schooling of meritorious deaf pupils of capacity and promise, when properly recommended, beyond the previous limit of ten years.

The oral method of educating the deaf seems to be gaining prevalence in all civilized countries. Italy has within a few years adopted it exclusively, France is rapidly doing so, and Germany never had any other system. In 1886 a Royal Commission was appointed in Great Britain, to inquire into the best methods of instructing both the deaf and the blind, as well as into other matters pertaining to the well-being of these two classes. This commission consisted of sixteen persons of the highest intelligence, including dignitaries in Church and State, as well as members of the legal and medical professions. After an exhaustive inquiry into the merits and results of different methods of educating the deaf, by personally visiting schools in the different countries of Europe, and by listening to representatives of different systems from America, they all sign the following recommendation: "That every child who is deaf should have full opportunity of being educated on the pure oral

system. In all schools which receive government grants, whether conducted on the oral, sign and manual, or combined, system, all children should be, for the first year at least, instructed on the oral system; and after the first year they should be taught to speak and lip-read on the pure oral system, unless they are physically or mentally disqualified." Two of the signers, however, would have preferred a more qualified endorsement of the oral system, and a higher recognition of the merits of the other systems; while two others would have condemned every method but the oral, maintaining that no deaf child capable of learning at all is mentally disqualified for this method, and that none but the blind-deaf are "physically disqualified," and that these should be put in a school for the blind. Twelve of the sixteen commissioners signed the foregoing recommendation of the pure oral system without any expressed reservation.

Located as we are within the boundaries of and yet at a short distance from the centre of a small city, we enjoy many advantages we should miss in a less favorable location. Although our pupils are at the present time, with a single exception, boarding pupils, our distance from town is not an inconvenient one for the few families coming here from time to time to reside during the period of their children's school life. Our older pupils have access to the library and reading room of the city, and to the art gallery of Smith College, and may attend such public entertainments as are fitted for their instruction or amusement.

The separation of our pupils into two distinct families and schools inevitably increases expense greatly; but we cannot doubt that the gain to the pupils is quite sufficient to make this increase of cost not only justifiable, but even commendable. The complete separation of older and younger pupils has many and generally acknowledged advantages. A different arrangement of hours, occupations, amusements and diet is by this means made entirely practicable. In each school and family the number of persons employed as instructors and care-takers is determined with reference to what is judged to be for the best interests of the pupils, rather than with reference to the expense incurred. Each department of the school contains as many grades as though the number of pupils were far larger than it is; so that, while we gain all that is to be gained from careful grading, we have also the generally conceded advantage arising from small classes. Our average number of pupils in each class is not more than eight. One of the foremost educators of the deaf in this country, one of long experience under the manual system, when questioned as to the best size of classes, replied that in his judgment the best results could be obtained with a class consisting of from five to seven pupils, whatever the system of instruction employed. Out

of school hours our pupils are divided into five sections. Each section is in charge of an attendant, and occupies its own playground, play-room, parlor and set of sleeping rooms, and different manual occupations and amusements are arranged for each section. These are all ways of increasing expense, but also of increasing the value of that which we give our pupils. The association of teachers and pupils is made as intimate as possible. Our teachers all board in the house, sitting at table with the pupils, and each having charge of a class. The religious teaching of the school is given by each teacher in her class-room at morning prayers and in Sabbath school, a general religious service being conducted by the principal on Sabbath morning. It is our aim to make the life of our pupils while here as far as possible that of members of a well-regulated family, so that they will be fitted, rather than unfitted, for life in the home when school is finished. It will hardly be denied that great care is needed in this direction in every institution. That proper care may overcome such a tendency has been amply proved in more than one institution in this and other countries.

In our school-room work, our first aim is to develop the minds of our pupils, and to teach language as an expression of thought. During the earlier years all effort is directed towards this end. The later years are occupied with a regular course of study, although the acquisition of language is always considered of prime importance. The ease with which such branches of study may be pursued is in exact proportion to the knowledge of language previously acquired. This knowledge of language we attempt to give through the oral method, so called. This method teaches the child spoken words first, then written words. Our communication with pupils, and all instruction, is through spoken or written language. Ability to understand the language of books and the spoken language of the persons with whom one is associated is all that is needed to make unlimited acquisition of knowledge possible. In so far as we can impart this ability to our pupils, we furnish them in the best possible way for life among men. If we add to this such training of eye and hand as shall fit our boys and girls to support themselves, we have surely done for them the utmost in our power. With this last object in view, our older boys are employed in cabinet work under a competent instructor from two to three hours each day. The girls are taught sewing and light housework, and instruction in wood-carving and cast drawing is given to all the older pupils who, on trial, show any aptness for either. Physical culture is not neglected, plenty of exercise in the open air is insisted upon, and gymnastic exercises are practised regularly in the primary school; but the need, especially for our older pupils, of a well-equipped gymnasium, is greatly felt.

HORACE MANN SCHOOL.

The school opened on Sept. 5, 1888, with 86 pupils, — 26 boys and 40 girls. During the year, 12 boys and 12 girls were admitted, and 3 girls were discharged. At the close of the year, in June, 1889, there were 87 pupils, — 38 boys and 49 girls.

The completion of the new school-house, for which the first appropriation was made in April, 1886, has been greatly delayed by the unfaithfulness of persons in charge of certain parts of the work. It is earnestly hoped that pupils and teachers will not much longer be forced to remain in the close, uncomfortable rooms of the old building. Notwithstanding the disadvantages incident to increasing numbers of pupils in limited quarters, the work of the school has been carried on with skill and enthusiasm. The methods of instruction are nearly the same as reported last year. Weekly written examinations, given in all of the classes, except the youngest, have helped to emphasize the need of care in expression, as well as to lead to a better performance of daily work. Good results have followed the use of a set of phonic charts for drill upon vowel and consonant elements and their combinations. The children have learned, by means of these charts, to associate the sounds of the various elements with the printed letters that represent them, and thus have been prepared for the printed page.

An illustrated primer that was published early in the year for youngest readers has afforded great pleasure to all beginners. In every class the pupils are encouraged to read books, even if, at first, reading means only the pronunciation of a few familiar words. Some of the more advanced pupils show a fondness for books that is most encouraging. Deaf children need to acquire a habit of reading, so that they may add day by day to the knowledge obtained at school.

The following uncorrected description of an entertainment, written by a pupil who became totally deaf at three years and four months of age, illustrates the ability of one to understand a public lecture : —

At the Missionary Festival held in Berkeley Temple, May 1, 1889, a village scene was performed on the platform, to show us how the

children in the heathen country of Turkey were treated by their mothers. Some cushions were placed on the floor, and the rest of the furniture which consisted only of a bag full of things and a large jug to drink out of. After this was all fixed up, a lady came running down stairs dressed in a real Turkish costume with her face covered up to her eyes. She pushed the cover down under her chin and began to talk. As I had nothing else to do I watched her not intending to try to understand her, but when I looked at her face I caught a few words she said without having tried to, and after that I thought I would try and see what she was talking about. She said she wanted us to imagine that the platform was a Turkish house surrounded by high walls, with nothing but the sky for a covering overhead. She was going to make believe she was a Turkish mother with a daughter and a daughter-in-law, and she was going to behave as if she was a real Turkish heathen mother in a Turkish home. She went on and described all about it. I did not understand everything she said, but enough here and there to give me an idea of what it was about. At the last she said she wanted us to remember and not forget, and if you do I shall be very sorry indeed, and then she asked the children to raise their hands at which a great many did. I thought from what she said that she wanted us to remember that she was not going to perform this to make us laugh or to make fun of the heathen, but to show us how necessary it is to send missionaries to the heathen, but I afterwards found that she did not want us to forget the heathen and to pray for them. I never thought of that before as I didn't suppose anybody would forget them but it seems they do from the way she talked. Then she ran up stairs and a girl came down dressed in a Turkish costume. She took up a tray and sitting cross-legged on the cushion, began to pick something which was on the tray, then another girl came down (an older one) and began to help her sister-in-law. Then down came the mother and seeing her little girl she began to scold. So it went on in this way, scolding, shaking, slapping and pulling her here and there. By and by they got word that some visitors were coming and then they flew about fixing things up a little. Then the company arrived. First came a lady dressed in a white cloth from head to foot and behind her came four or five little girls dressed something like Americans. They all sat down in a row on the cushions and the two daughters began to help them unfasten their things, at the same time saluting them in the Turkish fashion. The mother sat beside the lady, whom I found to be a missionary. The missionary began to talk to the mother who had in the meanwhile put the youngest daughter in front of her. While she talked the mother would once in a while scold the little girl and pound her. After a while the missionary began to

talk to the little girl about honoring her father and mother and that she was afraid she did not do it. After they had been there a while, a boy rang a bell which was a sign for the visitors to go home. They put on their things and went home. After that was over a missionary from one of the islands in the Pacific ocean, spoke to us. She said it was thirty-two years since . . . , and then she began to tell about the wreck of the Morning Star which she happened to be on. There had been a storm which drove the ship upon the rocks and made a leak in it. They were not very far from land and when the natives could they came in boats and took them safely to the shore, but it was six months before they saw another ship on the water and then one came and took them off. The last time she was there was about two years ago. This was the first time I had ever understood what these different people said in our meeting. I never understood so much of what was said in a meeting and so enjoyed it very much indeed, better I think than any other meeting I ever went to. Sometimes in church I can understand a few some of the ministers say, but not very often.

Manual training has been given to the older pupils at the North Bennet Street Industrial School, and to the younger pupils at the Slöjd School in the Warrenton Street Chapel. The value of this preparatory training for industrial pursuits is shown when the pupils go out from school to find occupation. Last May, the father of a boy who left school the previous June wrote to the principal : —

Some weeks after leaving school, my son-in-law succeeded in getting — a chance (on trial) with Mr. S., a manufacturer of watch tools. On account of some legal point in his lease at the time he had shut down his works, and would resume in September, at which time he would put — at work. Meanwhile, Mr. L., doing the same kind of business, had an order to fill on short notice for a quantity of tools, and sent to Mr. S. for a workman for a few days. Mr. S. told him, as he was not working, he had no one employed; but that — had been recommended to him as being naturally ingenious; perhaps he might be able to do the work required. Accordingly Mr. L. set him to work. He told him his job would last four days; but he gave such satisfaction that he is still at work for him. After he had been at work some two months, Mr. S. came into Mr. L's shop, and, noticing how skilfully — worked, he at once put in a claim for his services, as he had first been engaged to him. Mr. L. told him he might have any other hand in his employ, but he should keep —; and he has done so. He gave him seventy-five cents per day until February 1, since which time he has given him one dollar per

day, and says he will give him a further advance at the end of the year. Since that time the superintendent of the ——— Company has offered him a job as a finisher, a part of the work requiring the highest mechanical skill. So, from present prospects, we feel satisfied that, with health, he will be able to earn an honest living; and we feel very thankful, and consider that his success is due in a great measure to the judicious training he received while attending your school. We shall always feel grateful to you for his success, not only so far as business is concerned, but for his habits, which are everything that parents would wish.

It is a pleasure to notice, in connection with the Horace Mann School, the establishment, at West Medford, of a Home School for deaf children under five years of age. This infant school was founded by Mrs. Francis Brooks, whose deep interest in the education and well-being of deaf children is so well and so widely known. It was opened on the 15th of June, 1888, and since that time has received twenty pupils. It now has eleven children under its care and instruction. We are permitted to quote, from a circular letter issued by the committee in charge, the following statements:—

Children may be admitted to the Home at the age of two and one-half years, in order that they may begin as early in life as possible to acquire speech in a natural way. They are encouraged to use their voices, and are taught to mould the sounds which they make into speech, first naming familiar objects, and gradually learning to form simple sentences, expressing their little wants. These words and sentences, seen upon the lips of their teacher, soon become as familiar to their eyes as the sounds of words do to the ears of hearing children. The next step is the association of these words and sentences with their written forms. The curiosity of the child being roused by knowing that things have names, he is eager to add to his vocabulary. His toys are labelled, articles of furniture have written names affixed to them, and slips of paper with the names of the different kinds of food upon the table are given to him. From these slips he can select the written word even before he is able to speak it, and thus indicate his wishes in regard to his food. Much of the instruction in speech, speech-reading and written language, is given through play, and by exercises designed to train the eye and hand, as well as to develop and quicken thought. The ordinary plays and games of little children are made the means by which the teacher presents again and again the words which must be learned through much repetition.

AMOUNT EXPENDED FOR THE INSTRUCTION OF THE DEAF DURING THE YEAR.

Paid Clarke Institution.

73 pupils, for quarter commencing April 1, 1889, .	\$3,259 37	
73 pupils, for quarter commencing July 1, 1889, .	3,193 75	
76 pupils, for quarter commencing Oct. 1, 1889, .	3,325 00	
	<hr/>	\$9,778 12

Paid Horace Mann School.

75 pupils, Feb. 1 to July 1, 1889,	\$4,165 05	
Transportation, Dec. 1, 1888, to March 1, 1889, .	249 36	
Transportation, March 1, 1889, to June 1, 1889, .	267 57	
84 pupils, Sept. 1, 1889, to Feb. 1, 1890,	4,108 10	
Transportation, June 1, 1889, to Nov. 15, 1889, .	337 29	
	<hr/>	9,127 37

Paid American Asylum.

52 pupils, for quarter commencing March 1, 1889, .	\$2,306 25	
52 pupils, for quarter commencing June 1, 1889, .	2,306 25	
50 pupils, for quarter commencing Sept. 1, 1889, .	2,218 75	
Clothing furnished beneficiaries, for the year ending July 1, 1889,	225 54	
	<hr/>	7,056 79
C. P. Wells, support of Mary Wells,		75 00
Kindergarten for Blind, support of Edith M. Thomas, . .		300 00
		<hr/>
Aggregate amount expended during the year,		\$26,337 28

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

The total number of blind persons connected with this institution Oct. 1, 1889, was 226, of whom 206 belonged to the educational departments, and 20 were employed in the workshop for adults. Those connected with the educational departments are classified as follows : —

Pupils belonging to the boys' department,	89
“ “ “ girls' department,	68
“ “ “ kindergarten,	32
Teachers and employees,	14
Domestics,	3
	<hr/>
Total,	206
Number of Massachusetts beneficiaries,	110
of adults belonging to Massachusetts,	24
of blind persons belonging to other States,	92
	<hr/>
Total,	226

The following summary of the annual report of the treasurer to the corporation represents the financial status of the institution : —

Receipts.

Cash in the treasury Oct. 1, 1888,	\$37,306 52	
Annual appropriation from the State of Massachusetts,	30,000 00	
Income from all other sources,	55,027 94	
Legacies and donations,	5,211 00	
Legacies, donations and contributions to the kindergarten fund,	75,534 44	
Collection of mortgage notes, etc.,	37,000 00	
	<hr/>	\$240,079 90

Disbursements.

Maintenance, superintendence and instruction, . .	\$60,307 55	
Kindergarten grading, insurance, and repairs on houses let,	1,640 18	
All other expenses,	16,235 38	
Investments,	99,650 00	
Cash on hand in New England Trust Company, to pay mortgage,	50,000 00	
Cash balance in treasury Oct. 1, 1889,	12,246 79	
	<hr/>	\$240,079 90

The year just ended has been a prosperous one in all departments of the institution. The kindergarten, which was opened at Jamaica Plain in May, 1887, for very young blind children, has been filled to overflowing, notwithstanding that promotions have twice been made from it to the school at South Boston. This kindergarten is doing an admirable work in promoting the education of blind children ; for not only are its pupils better prepared for the primary instruction given the youngest classes at the South Boston school, but it has so aroused the attention of parents to the importance of early training, that the admissions during the last two years show an unusually large proportion of young children. With such material the school can accomplish better results than heretofore.

In the intellectual department, the training has been conducted on the same general principles as in preceding years ; the pupils have made good progress, and a class of eleven members graduated at the close of the school year in June last.

Much attention is given to the musical training of all pupils who have sufficient ability in that direction ; and this education becomes not only a pleasant accomplishment, but is so thorough

that it fits them for future success as teachers, vocalists, pianists or organists. The tuning department gives very thorough tuition in the construction, care and tuning of pianos, — a business which can be very successfully pursued without sight.

The printing office of the institution is gradually enlarging its work, and is supplying a large library of embossed books, wall and dissected maps, and other tangible apparatus for the use of the blind.

The education of Edith M. Thomas, the blind deaf-mute whose case was mentioned in the last report to the Board of Education, has been continued with very gratifying results. She has made considerable progress in language, and now understands the use of comparatives, the singular and plural of nouns and the personal pronouns, and she uses prepositions with greater freedom and correctness. The manual alphabet has become so familiar that she frequently talks to herself in finger speech. She reads from embossed books, and has recently become much interested in so doing; and it is exceedingly interesting to watch her as she reads to her teacher, following the lines with the fingers of her left hand, while with the right she translates the words into the manual language. She writes a legible hand, with pencil; studies elementary arithmetic; has taken the kindergarten occupations, and is now able to analyze the gifts. She takes great delight in modelling with clay, in which she is very successful. She has a very active mind, is ingenious in her plans and skilful in executing them without assistance, and her independence and self-reliance are remarkable.

INCOME OF MASSACHUSETTS SCHOOL FUND, 1889.

Cash on hand Jan. 1, 1889,	\$62,924 04	
Income for 1889,	128,702 18	
	<hr/>	\$191,626 22
Paid cities and towns in 1889,	\$63,980 24	
Paid educational expenses, 1889,	63,822 99	
	<hr/>	127,803 23
		<hr/>
Cash on hand Dec. 31, 1889,	\$63,822 99	
From which there is to be paid to cities and towns in 1890, .	63,822 99	
	<hr/>	
The Massachusetts school fund amounted, Dec. 31, 1889, to .	\$2,709,725 32	

NORMAL SCHOOLS.

The first normal schools in the State were established fifty years ago. At that time the public schools did not command the confidence of the people. The teachers were poorly qualified and poorly paid. There was little or no supervision of the schools. A very few of them, only, had definite courses of study provided. The school-houses were in an unsatisfactory condition, and a large number of school children were in private schools.

During the last half-century public instruction has been wonderfully improved, both in its spirit and in its results. As the improvement is due, in an important sense, to the influence of normal schools, it may be well to give a brief history of these institutions in their establishment and development.

HISTORY OF NORMAL SCHOOLS.

History informs us that Germany was the first country in the world to organize a system of public education, to be administered by the State.

The reformation under Martin Luther turned the attention of those affected by it to the necessity of training the people to think for themselves. This suggested the idea of establishing public schools, in which the youth could receive instruction in such branches of learning as are the occasions of useful knowledge, and a right development of their intellectual and moral faculties. The establishment of schools for the education of the children created a demand for school teachers; and the demand revealed the fact that there was no reliable source of supply. Lord Bacon, who wrote a little before this time, said, "The art of well delivering the knowledge we possess is among the secrets left to be discovered by future generations."

In 1539 Luther issued an earnest appeal to the magistrates of the towns in the German countries, urging them to establish schools for the children; and, that competent persons might be found to administer instruction, he further urged the authorities to provide seminaries for the professional training of school teachers. Luther seems to have been the great pioneer in those educational reforms that since his day have wrought rad-

ical changes in the studies pursued in the common schools, in methods of teaching practised, in the ends to be secured by school exercises, and in what should be considered the requisites of a school teacher.

Establishment of Normal Schools.

The first normal school of which we have any authentic account was established in Rheims, France, in 1681, by the celebrated Abbé de la Salle, canon of the cathedral of that city. Although France is entitled to the honor of having instituted a system of professional training for school teachers, Germany certainly deserves the credit of having extended and perfected it.

As early as 1697 Augustus Herman Francke organized a teachers' class in connection with his orphan school at Halle. From this class he selected twelve, who gave evidence of possessing the right "basis of piety, knowledge and aptness to teach," and trained them for two years in the principles and method of teaching. They were then sent out to practise the art which they had learned by first becoming familiar with the philosophy on which it is founded. Their success was great, and soon attracted the attention of educators in all parts of Germany. Multitudes came to the Normal School at Halle to learn the improved methods of public school instruction. Among the number was Johann Julius Hecker, who became one of the foremost followers of Francke, and who in 1735 founded a teachers' seminary at Stettin in Pomerania, a maritime province of Prussia, and in 1748 another in Berlin. The graduates of the school at Berlin proved themselves to be so far superior to untrained teachers that Frederick the Great, by a royal ordinance, provided that no others should be employed to teach in schools on the Crown lands of his kingdom. The school established at Berlin was afterward removed to Potsdam, and with the school at Stettin became State institutions, the first State normal schools ever established. Since the middle of the eighteenth century teachers' seminaries have been established in all parts of Germany. Some of these schools are private institutions, but all are under the general supervision and control of the State. The State Normal School at Potsdam is a celebrated institution, and has been taken as a model in its

organization and management by nearly all the normal schools of Europe.

The Potsdam normal school and the model school connected with it are under the direction of a principal, who himself is subordinate to the royal school board of the province, and through this board to the minister of public instruction. The minister establishes the principles in accordance with which the general management of the school shall be conducted, controls the arrangement of the course of studies to be pursued, and the appointment of masters; and requires a detailed annual report to be made to him by the principal, through the medium of the school board. This principal has the immediate supervision of the school, directs the subordinate teachers in their work and the servants in their various offices, makes reports of his acts and of the condition of the school, and attends to the correspondence.

The number of pupils is limited to seventy. These are to be instructed by seven masters, including the principal. Candidates are admitted to the school by a thorough examination. They must have good health, and be free from all physical defects; they must be at least seventeen years of age; they must be able to furnish certificates of birth and baptism, of scholarship and of good moral character. The examination is conducted partly by the written method, and partly by oral questions and answers. The subjects of examination are those taught in the public schools, including vocal and instrumental music. The successful candidates are required to sign the following pledge: "I, the undersigned, A. B., by these presents bind myself, conformably with the ordinance of the royal minister of public instruction and ecclesiastical and medical affairs, to place myself during three years, after my leaving the normal school, at the disposal of the king's government, and consequently not to subscribe anything contrary to this engagement; or, in such case, to refund to the normal school the expenses incurred by the State for my instruction."

The first year of the normal course is devoted to what is called formal instruction and study. Formal instruction has for its object the acquisition of a thorough knowledge of primary subjects of study, by the use of a good method; and of a knowledge of the duties of the primary teacher. Material

instruction occupies the second year, and is directed to higher branches of learning, and to the principles and methods of teaching. Practical instruction occupies the third year, and consists of a training in the art of teaching. During the third or last year of the course, the normal pupils are required to prepare and teach ten lessons each week in the model school. At the close of the three-years course, the candidate for graduation is required to pass a satisfactory examination in the studies he has pursued, and in the methods of teaching them to others.

The Prussian law of 1819 provided that no normal seminary should admit over seventy pupils, that the seminaries should be established, as far as possible, in small towns, so as to preserve the pupil-teachers from temptations and habits of life incompatible with their future profession; but the towns must not be so small as to subject the pupils to monastic seclusion, or to deprive them of the opportunity of observing the methods of instruction employed in good primary and secondary schools. The age of pupils admitted into the seminaries shall be from sixteen to eighteen years, and no person shall be received who has not passed through a course of instruction in an elementary school, or who cannot furnish satisfactory evidence of possessing a good moral character. The directors of the seminaries were required to lead their pupils to a knowledge of methods through an experience in their application, as well as through a knowledge of principles upon which the methods are founded. To furnish opportunities for experience, practice schools were to be connected with every normal school. The course of instruction was to require three years for its completion.

Normal Schools in Massachusetts.

The system of normal-school instruction first established in Prussia has since been introduced into every civilized country in the world.

In 1789 Elisha Ticknor published some articles in the "Massachusetts Magazine," in which he recommended the abolition of the town grammar schools, and the establishment of one such school in each county of the State, in which pupils might prepare for college and for school-keeping. About the same

time Noah Webster expressed the opinion that the principal defect in the practical working of the public-school system in this country was to be found in the incompetency of school teachers.

In 1823 Rev. S. R. Hall established a private seminary in Concord, N. H. The chief purpose of the institution was to furnish a professional training to those who designed to become teachers in the public schools. Here were given some of the first lectures, if not the first, ever delivered on school-keeping in this country. Mr. Hall has received the title of the American Hecker, on account of the relation which his early efforts hold to the origin of normal schools in America.

In 1834 Rev. Charles Brooks, then in London, became acquainted with Dr. H. Julius of Hamburg. This gentleman had been commissioned by the king of Prussia to learn the condition of the schools, the hospitals and the prisons of this country. Mr. Brooks and Mr. Julius were room-mates on board ship during a passage of forty-one days from Liverpool to New York. This furnished a rare opportunity for a discussion of what Mr. Brooks called the noble, the philosophical and practical system of Prussian elementary education. He also carried on a correspondence with the French philosopher and educator, Cousin, who had made a most intelligent examination of the schools of Prussia and Holland, and had prepared an able report of his observations for the French government. Through the information received from the conversations of Mr. Julius and from the writings of Cousin, Mr. Brooks became intensely interested in the Prussian system of education, especially in her system of normal schools; and he was so fully convinced of its excellence that he said he felt called of God to try to introduce it into his native State. Taking the Prussian system of normal schools as his ideal, he began in 1835 to lecture and to write on the subject, urging upon the people and the government the importance of introducing into our own school system institutions for the special training of school teachers. He thought that there were grave objections to private normal schools, though conducted by competent teachers; that Massachusetts needed State normal schools, owned, supported and governed by the State, for the service of the State. For these early services rendered to the cause of popular education,

which directed the attention of its friends to the great need of a State system of normal instruction for school teachers, Mr. Brooks deserves the grateful remembrance of his countrymen. But there were other and powerful influences that contributed to making Massachusetts the pioneer in the establishment of our State normal schools.

On the 15th of March, 1830, a meeting of teachers and other friends of education was held at the Columbian Hall, Boston. The meeting was continued by adjournment from day to day until the 19th, and occupied the time with a discussion of the condition of the schools in the New England towns. On the 18th a committee was chosen to prepare a constitution for the government of a permanent association of American educators, and to devise a plan for holding a future meeting. The committee met several times in May and June, and formed a draft of a constitution. The convention to ratify the constitution prepared by the committee assembled on the nineteenth day of August, in the Representatives Hall, Boston, and was organized by the choice of William B. Calhoun as president, of George B. Emerson and J. W. McKean as secretaries. The discussion of the constitution continued for four days. During the intervals of the discussion, papers were read by the most distinguished educators of that time. The introductory discourse, the first ever delivered before the American Institute of Instruction, was read by Francis Wayland, president of Brown University. The subject of his paper was, "The end of intellectual education, and the manner in which it is to be obtained." The closing sentences of this discourse are worthy a place in the memory of all friends of public education. He said: "This country ought to be the best educated of any country on the face of the earth." "We can do much toward bringing about this grand result. God helping us, then, let us make our mark on the rising generation."

At the same meeting, James G. Carter of Lancaster read an able paper, on the necessity and method of raising the qualification of teachers. Mr. Carter graduated at Harvard College in 1820, and at once began to write upon educational topics. In 1824 he published a volume of essays on popular education, and soon after a volume in which he unfolded a detailed plan for the education of teachers. He was the author of the legis-

lative Act establishing the Massachusetts Board of Education ; and procured, by his persistent efforts, the passage of the normal school Resolve of 1838. For his writings and for his public services he has received the title of “ Father of normal schools in America.”

The addresses made at this first meeting of the American Institute of Instruction, by the foremost educators of that day, constitute a most important contribution to our educational literature. They declared that the institute was established for the accomplishment of the following ends : —

1. To furnish the means, by the co-operation of its members, of obtaining an exact knowledge of the present condition of the public schools in all parts of the country.

2. To render universal, so that it shall pervade every district and village, a strong conviction of the paramount national importance of preserving and extending the means of popular instruction.

3. To show that education is a science, whose principles are fixed, to be entered upon by men of a philosophical mind, and pursued with a philosophic spirit.

4. To enlist openly, on the side of popular education, men of the brightest intellects and the largest influence in the nation. And, lastly, to raise the standard of the qualification of instructors, so that the business of teaching shall not be the last resort of dulness and indolence, but shall be considered, as in the days of republican Greece, an occupation worthy of the highest ambition and talents.

In this important movement of the educators of New England originated the establishment of the Massachusetts State Board of Education, and through its subsequent efforts the Massachusetts State normal schools.

BOARD OF EDUCATION.

On the 14th of January, 1837, the Massachusetts House of Representatives passed an order requesting the committee on education to consider the expediency of providing by law for the better education of the teachers of the public schools. On the 14th of April, the committee made, through its chairman, Mr. Carter of Lancaster, the following report : —

The committee on education, to whom was referred so much of His Excellency the Governor's address as relates to education, and to

whom was also referred the memorial of the directors of the American Institute of Instruction and the petition of a convention of delegates from each of the towns of Plymouth County, and who were directed, by order of the House, Jan. 14, 1837, to consider the expediency of providing by law for the better education of teachers of the public schools of the Commonwealth, have carefully considered those subjects, and report thereon the accompanying bill.

Be it enacted, etc., as follows :

His Excellency the Governor, with the advice and consent of the council, is hereby authorized to appoint eight persons, who, together with the Governor and Lieutenant-Governor, shall constitute and be denominated the Board of Education.

The bill was passed into a law, and was signed by the Governor April 20, 1837. On the 27th of May, 1837, the Governor made an official communication of the appointment of eight persons, who were to constitute the first Massachusetts State Board of Education. Mr. Mann said it was the first great movement towards an organized system of common schools which shall be at once thorough and universal.

The Board held its first meeting in the council chamber on the 29th of June, and organized by the choice of the Hon. Horace Mann to be its secretary.

The Board turned its attention at once to the condition of the public schools and to the qualification of the public school teachers. In March, 1838, Hon. Edmund Dwight, himself a member of the Board of Education, offered, through its secretary, to give \$10,000, to be expended under the direction of the Board, for qualifying teachers for the common schools, on condition that the Legislature would appropriate an equal amount for the same purpose. On the 19th of April, 1839, the Legislature passed resolves accepting Mr. Dwight's proposition, and appropriated \$10,000, to be placed at the disposal of the Board of Education.

At a meeting of the Board, held Dec. 28, 1838, it was voted to establish a normal school in the town of Lexington for the training of female teachers, and one at Barre for the training of both sexes. The school at Bridgewater was established by vote of the Board, May 20, 1840.

LEXINGTON-FRAMINGHAM SCHOOL.

BY MRS. ELECTA N. LINCOLN WALTON.

Soon after the year 1820 a few intelligent, high-minded, strong-hearted men, who saw the great evil of the decline in popular education, began earnestly to consider the causes of that decline, and to seek the remedy; and these men, one after another, soon arrived at the same conclusion: that, while the remote cause of the decline lay in the indifference of the people generally, the immediate cause was in the employment of teachers unfitted and inexperienced, who in too many instances were ignorant, not only of the best methods of teaching, but even of the subjects which they attempted to teach. The remedy for all this must be sought "in the proper training of the teacher," which could best be had "in seminaries set apart or established for the purpose." To substantiate their position, reference was made to normal schools already established in Prussia.

With these pioneers, right thinking implied right acting, and essays in popular journals, resolutions in teachers' meetings, and memorials to the Legislature, began to awaken the people and the Legislature to realize that by right education of the whole people only could the future prosperity of the State be fully and permanently secured, and prompted them to adopt measures looking to that end.

The names of some of these noble men, and a brief notice of their work, may be found in the quarter-centennial address before the Framingham Alumnae Association, by Dr. Eben S. Stearns, and in the fortieth annual report of the Board of Education (1875-76), in the article on "Massachusetts Normal Schools." In the same connection there will also be found a notice of the establishment of the Massachusetts Board of Education in April, 1837, and the appointment of its illustrious first secretary, the president of the Senate, at their first meeting, June 29 of that year. When, by this appointment, Horace Mann stepped into the arena, a veritable warrior armed with the sword of the Spirit, having the justice of his cause for his breastplate and shield, the new educational era was assured, not only for Massachusetts, but for America. Almost immediately after its establishment the Board of Education issued an address to the people, calling for conventions, which were held in every county but Suffolk, and which stirred the whole community upon the subject. They also recommended the passage of a law providing for the establishment of normal schools. Under date of March 10, 1838, Mr. Mann wrote in his private journal: —

Went to Mr. Dwight's, where a number of gentlemen were assembled to discuss the expediency of applying to the Legislature for a grant to aid

in the establishment of teachers' seminaries. . . . After they had dispersed, Mr. Dwight gave me authority to propose to the Legislature, in my own way, that \$10,000 should be forthcoming from himself and others; and that, at any rate, he would be responsible for that amount to accomplish the object, provided the Legislature would give the same amount for the same cause.

Accordingly, on Monday, March 13, 1838, Mr. Mann had the satisfaction of sending to the Legislature a communication embodying Mr. Dwight's offer, and urging its acceptance. On the 19th of April the Legislature passed resolutions accepting the gift, and authorizing the Governor, with the advice and consent of the Council, to draw a warrant upon the treasurer for \$10,000, to be placed at the disposal of the Board for the purpose specified in the communication.

After mature deliberation the Board decided to establish three normal schools,—one for the north-eastern, one for the south-eastern, and one for the western part of the State, to be continued three years as an experiment; and, as the \$20,000 at their disposal was not sufficient to provide for buildings, the Board made known that they would establish the schools at suitable places as soon as they should receive the requisite assistance to secure buildings.

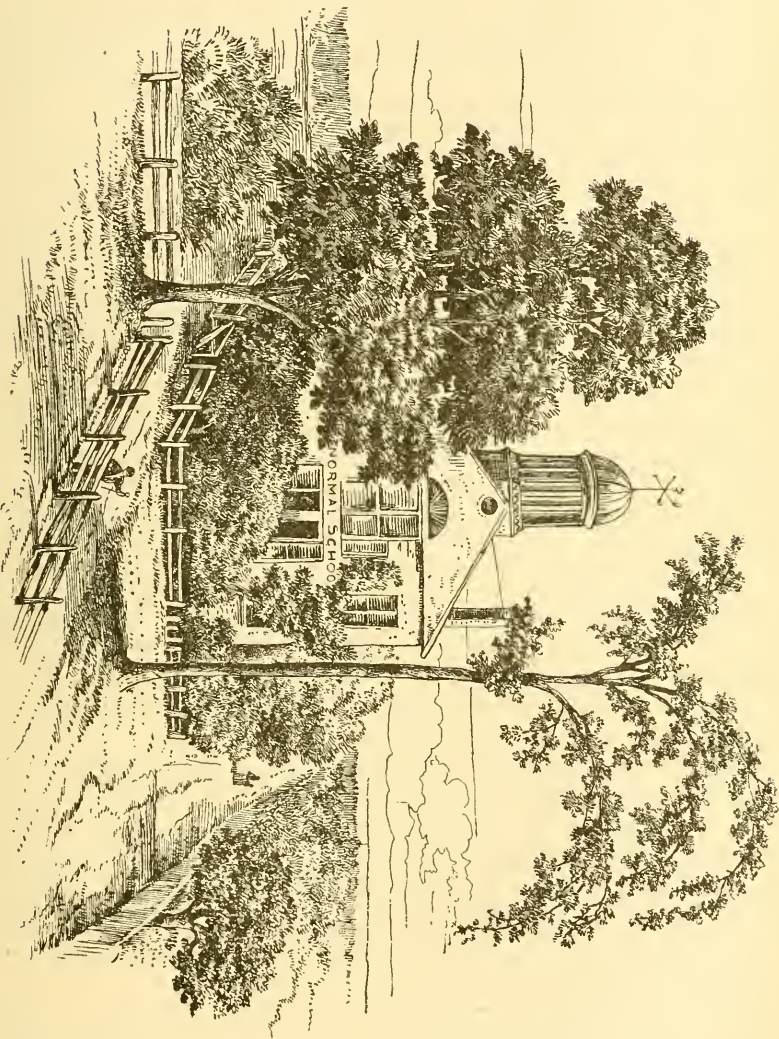
Proposals were made by many towns in different parts of the State, and at a meeting of the Board, Dec. 28, 1838, it was formally voted “to locate a normal school for the qualification of female teachers in the town of Lexington, and one at Barre for teachers of both sexes.” The citizens of Lexington procured a lease of a good academy building and boarding-house for the term of three years, and placed it at the disposal of the Board; they also raised by contribution the sum of \$1,000, to be expended in library, apparatus, etc., for the benefit of the school.

A circular of information was then issued, published in the “Common School Journal” of March, 1839, giving notice of the proposed establishment of the school at Lexington, and stating the requisites for admission. This was signed by Jared Sparks, Robert Rantoul, Jr., George Putnam, Horace Mann, visitors of the normal school at Lexington, and dated Boston, Feb. 27, 1839.

REV. CYRUS PEIRCE, FIRST PRINCIPAL.

The next June, Rev. Cyrus Peirce of Nantucket was engaged to teach the school, saying, as he accepted the appointment, “I would rather die than fail;” and the 3d of July (Wednesday) was appointed for the school to commence.

Lexington Normal School Building.



Of Mr. Peirce's qualifications the following extract from the memoir of Horace Mann will testify :—

Mr. Peirce proved to have qualifications for his vocation even beyond his (Mr. Mann's) expectations. He not only knew how to teach with precision, but he evoked from his pupils such a force of conscience as insured thorough study and assimilation of whatever was taught. When Mr. Mann first visited his school at Nantucket, he was charmed by the evidence of power that the whole management and all the recitations of the school evinced; and when he spoke of it afterwards to gentlemen of the place, one of the most respectable citizens said to him that he had lived forty years on the south shore, and could always tell Mr. Peirce's scholars, whenever he met them in the walks of life, by their mode of transacting business, and by all their mental habits, which were conscientious, exact, reliable From that time Mr. Mann had his eye on him; and he always felt that to Mr. Peirce was chiefly owing the very rapid and unquestionable value, in all eyes, of this new movement.

Wednesday came, and with it a very heavy rain. Assembled in the reception room of the normal building were the august visitors of the school, with the newly elected principal, and before them sat three timid girls, — only three, — to be examined and enrolled as the first pupils of the first State normal school in America.

Undaunted either by the small number thus presented, or by the indifference of the public generally, which this meagre response indicated, and unawed by the mutterings of the coming storm which even then had been raised in certain quarters against the Board of Education, and which threatened this school as one of their projects, Mr. Peirce commenced his work; and so vigorously and so well did he perform it, that when at the next session of the Legislature the enemies of the movement succeeded so far as to influence the committee on education to bring in a majority report in favor of abolishing the Board of Education and normal schools, a minority of the committee and other friends presented such evidence of the good done by the Board and the Lexington Normal School that their triumph was complete, and the Legislature, by a vote of 245 to 182, sustained its former action.

Hon. Henry Barnard of Connecticut once said of Mr. Peirce, "Had it not been for Mr. Cyrus Peirce, I consider the cause of normal schools would have failed, or have been postponed for an indefinite period." Many eminent educators have since echoed the sentiment.

Such being the man and such the school, some extracts from his journal of the first few months will be read with interest. The following are selected, as showing something of the every-day working of the school at the time :—

EXTRACTS FROM "FATHER" PEIRCE'S JOURNAL.

July 3, 1839. This day the normal school, the first in the country, commenced. Three pupils, Misses Hawkins, Smith and Damon, were examined by the Board of Visitors, viz, Messrs. Sparks, Rantoul and Putnam, and admitted.

July 8, Monday. School opened this day with three pupils,—Hawkins, Smith and Stowe. One, Miss Rolph, added during the day. Exercises, conversation, grammar and arithmetic.

July 9. Misses Stodder and Damon came into school as pupils.

July 10. This day Mary Swift of Nantucket joined the school, making seven scholars in all. Our exercises thus far have been chiefly in grammar, reading, geography and arithmetic.

July 15. This day held a session in the upper room. Hitherto the sessions have been in the sitting-room. School visited by Mr. Sparks.

July 17. Almira Locke was examined and admitted.

July 22. An order of exercises has been decided upon for the school-room, and some rules for the regulation of the house. The studies for this week, and for time indefinite, are to be the common branches, algebra, natural philosophy, physiology, mental philosophy, book-keeping, moral philosophy and geometry.

July 29. The school visited by Messrs. Rantoul and Woodbury; the former one of the Board of Visitors, who was pleased to express decided satisfaction with the appearance of the school.

August 16. Commenced a new mode of recitation, by the scholars giving abstracts of lessons, *written out*. I also this day committed the hearing of the morning lesson to Miss Swift. Both experiments quite as satisfactory as I expected.

September 5. I am having the chambers of the school-house and the school-rooms better prepared for ventilation.

Mr. Peirce found his pupils deficient in language, and says:—

September 11. This day commenced a new exercise, styled conversational exercise. Each scholar relates a story, anecdote or fact, in her own language. It was quite a hopeful beginning.

September 12. School this day visited by Mr. Mann, who spent the day with us. . . . Mr. Mann was pleased to express much gratification in the visit, the state and prospects of the school, and we all felt benefited and cheered by his presence. This visit will mark quite an epoch in our history.

September 25. . . . Last evening there was a meeting of sundry citizens in the Baptist meeting-house, to consider the subject of a model school to be connected with the normal school. The project seems to meet the views of the people well.

October 1. This day my first quarter closes, with twelve scholars. In review of the term, I feel encouraged. The numbers have been much fewer than I anticipated, but, in regard to most of those who have attended, I believe they have made a good beginning.

October 9. The proposition for a model school meets with a flattering reception by the inhabitants, and there is encouraging prospect that the school will go into operation at the commencement of next term. Five children are to be taken from each district. If the more remote districts do not avail themselves of the overture, then a greater number is to be taken from the centre school district.

October 16. This day had a very appropriate and most excellent address from His Excellency Edward Everett, the chairman of the Board of Education, delivered in the First Church, in which he gave a brief history of the origin, progress and present condition of normal schools, and what is to be expected from them and accomplished in them: 1. Instruction imparted especially in the common branches. 2. The art of teaching taught. 3. The science of school government, and theory applied to practice in the model school. The whole discourse was exceedingly plain, intelligible, practical and instructive, and evidently made a deep and wholesome impression on the minds of a large and attentive audience. School-rooms and premises visited by the Governor, Mr. Dwight and others, with which they were pleased to express themselves well satisfied.

October 23. The model school contains thirty-three pupils, ages from six to ten; twenty-one boys and twelve girls. They have been arranged in three classes. . . . *They are in the very undesirable condition of being familiar with the books, without knowing anything they contain.* . . . The normal pupils will visit daily, and some of them will take the principal part of its instruction and discipline. I feel that it has added greatly to my labors and cares, but I feel also that it is a very important addition to the establishment, and one on which its success greatly depends.

According to the record, the first who went out to teach were Mary Swift and Mary Stodder. "They did well."

Thus Mr. Peirce worked for three years in Lexington, performing an almost incredible amount of labor, which heavily taxed even his strong powers of endurance. Let it be remembered that there was no appropriation for assistance of any kind, and Mr. Peirce took it upon himself to supervise or actually perform most menial services for the school. He seldom allowed himself more than *four hours'* sleep out of each twenty-four. He slighted nothing. He attended to the fires, he rang the school-bell, he heard almost every recitation in the normal room, and visited the model room at the recesses, often actually teaching while there. With the freely given assistance of his ever-faithful wife, he examined the written exercises, the compositions, the school journals, answered the demands of his large and growing correspondence, and arranged all his plans and all the details of his every day's school duties, with a persistency and conscientiousness unsurpassed if ever equaled elsewhere. But the physical and mental strain was too great, and in 1842, at the end of three years, Mr. Peirce was obliged to resign.

The success of the early graduates of the school was most marked.

They had stronger incentives, perhaps, for work, than the pupils at any subsequent time, and they did not dare to do otherwise than work and keep working to the end. They felt that the success of the whole normal enterprise rested for the time being upon their shoulders, and they must bear it, though they were crushed beneath it.

REV. SAMUEL J. MAY, PRINCIPAL.

The Legislature having appropriated to normal schools \$6,000 a year for the next three years, Rev. Samuel J. May of South Scituate was appointed to fill the place made vacant by the resignation of Mr. Peirce. He accepted the appointment on condition that he should have as an assistant Miss Caroline Tilden, a graduate of the Bridgewater Normal School, and a very brilliant and successful teacher, he deducting from his own salary the sum required for hers. Under his management for the next two years the school increased in numbers from thirty-one to sixty-six, making it necessary to secure additional assistance.

Mr. May was better known as a philanthropist than as a practical educator, but he brought to the school such a breadth of Christian love, such a noble zeal for all that was good and true, that his presence seemed to his assistants and pupils a perpetual benediction. "His success in the school was complete, giving entire satisfaction to all but himself." The following extract from a letter to Mr. Mann, dated Oct. 20, 1844, gives the key-note of his teaching. After speaking of attending a certain teachers' convention, he writes:—

I ventured to address the meeting upon the management of schools, . . . and then I urged at some length that teachers should go into their schools in the spirit of Christ, meaning to seek and to save them that are lost; being especially mindful of the neglected, ill-looking, ill-dressed, ill-tempered; not wishing them away, but rejoicing to have an opportunity to do for them in school what is not done for them at home. Let this class of children be at once made to feel that they are really cared for; that they are not shunned, but sought after; not despised, but valued; not doubted, but trusted; not despaired of, but hoped for: let them be treated thus, and a prolific source of trouble in schools would be dried up. *Love the unlovely, and they will put their unloveliness away.*

In July, 1844, after having taught two years, Mr. May resigned to give place to Mr. Peirce, whose health was sufficiently restored to enable him to resume the duties of the office. It was my privilege to be associated with Mr. May as pupil and assistant, with the exception of seven weeks, during his entire connection with the school, and I have never seen before or since so perfect an embodiment of the spirit of the Great Teacher. Sainted May! The remembrance of your presence hallows every association of our normal days.

Previous to his leaving the school, Mr. May, desiring to know whether the results of normal training were satisfactory, caused a letter to be printed and sent, one to each of the graduates of the school, asking for information in regard to her teaching, and for a copy of any testimonials she might have received. It appears, from Mr. May's report that year to the Board, that up to the time of the report there were somewhat over one hundred and ten to be heard from in regard to their success. Mr. May received eighty-three letters in reply, which, with accompanying testimonials from committees and others, he forwarded to the Board. The evidence of the success of the school as thus presented was most convincing. The entire report, with extracts from testimonials, etc., may be found in the report of the Board of Education for 1845.

REMOVAL TO WEST NEWTON.

The school had now outgrown its quarters, and it was necessary to seek for better accommodations. The Fuller Academy building in West Newton could be bought for \$1,500, but where could the \$1,500 be found?

Nothing daunted, Mr. Mann went into the office of his friend, Hon. Josiah Quincy, Jr., and in his emphatic manner said, "Quincy, if you know any man who wants the highest seat in the kingdom of heaven, it is to be had for \$1,500." An explanation followed, and Mr. Quincy gave Mr. Mann the money, directing him to take the deed in his own name, and, if the building was ever sold, to apply the proceeds to any purpose that he thought would best promote the interests of popular education.

It has been said that Mr. Mann sold his law library and gave the proceeds to fit up the building. This is a mistake. Long before this Mr. Mann had sold his library to fit up the normal boarding-house in Lexington; and at this time, to meet bills that could not otherwise be paid, other sacrifices were made, and the sum of \$1,300 contributed jointly by Mr. Mann and Mr. Peirce. It should here be stated that the citizens of West Newton contributed \$600 also towards fitting up the building.

ATTACKS UPON THE BOARD OF EDUCATION AND THE SCHOOL.

Now all indications for the future seemed propitious. The normal building was well fitted up, its seats were being rapidly filled by intelligent and earnest pupils, and its graduates were secured to teach in responsible and lucrative places. But just now Mr. Mann's seventh annual report appeared, which so exasperated the "thirty-one Boston schoolmasters" and others, that a whirlwind of opposition

was raised, which beat against the normal schools, and this school in particular, with almost as much fury as against Mr. Mann himself. Old teachers once more set themselves against it, because it interfered with their ways of doing things, and was a standing declaration that there was something in the art of teaching which experience alone did not give. Religious fanaticism, at first busy against the school and only quieted because it had nothing to fight against, was again aroused. "The school was opposed to the Bible," because it discouraged the use of Solomon's sovereign remedy; "it was irreligious," because it did not teach the dogmas of "their" church, or encourage exclusive attendance at "their" places of worship. The "Christian Witness," the "New York Observer," and especially the "Boston Recorder," lent their columns for the insertion of a series of most disgraceful articles against the Board of Education, its secretary, and the school. Most prominent in his virulent attacks was a certain reverend, whose articles in the "Recorder" were a stain upon the paper, teeming as they did with misrepresentation of facts and wanton untruths, which tended to do much harm where the author was not known.

I would gladly omit these painful particulars; but justice to all parties, and gratitude to those brave pioneers who lived down the calumnies, prompt me to speak, that the recent normal graduates may know and appreciate the struggles that gave them the opportunities they now enjoy.

But nothing that was said outside the school disturbed the peace within, or hindered its progress. Though representing almost every denomination, the pupils were a unit in their hearty repudiation of the charges made against the school whenever opportunity occurred. The attacks upon the school at last culminated in an onslaught, more virulent than any other, in the "Recorder" of June 3, 1847, where, after giving a partial and untruthful account of a normal sociable held at the close of a previous term, the writer concluded with the following words:—

We had some knowledge of the West Newton school before us. We knew the principal held a sway over the minds of his pupils that has never been assumed in a seminary of learning save in the Inquisition of the Jesuits. We knew that he inspected daily their private journals; took newspapers into the school to read and comment upon articles in respect to West Newton, that all thought and opinion might be his own; we knew that his theory of discipline, which urges the expulsion of a bad boy from school rather than whip him, was zealously inculcated by him; we knew what impressions he, a disbeliever in the Old Testament, left on his pupils in respect to those canonical and sacred books; we knew that he, a Parkerite in theology, was not careful to disguise his hatred of priests, and that he

smiled complacently when he read in the journals of his scholars their disbelief in the Bible, their hatred of the clergy, and their mocking of the Church; we knew something of the farce daily acted under the name of religious service, the prayer with which the exercises of the school closed, — “Live for the truth!” All this we knew, and more, which in good time will appear. But till now we were ignorant of the notions of delicacy and refinement taught in this pattern State school by its accomplished principal. Mr. J. W. Ingraham, whose friendship for Mr. Peirce none will question, has expressed what most feel. In allusion to Mr. Peirce’s semi-denial, his evasions and prevarications, Mr. I. said, in the presence of several gentlemen, “It would have been better for Mr. Peirce to have owned the truth at once.”

Connected with the school at the time, I know what a stir those cruel words made among the pupils, and recall the quiet dignity with which the principal received the shock. It was like the resistance to the storm of a giant oak, so firmly knit that not even a branch could be broken.

In the “Recorder” of June 17 appeared Mr. Peirce’s answer to these charges, also a card over Mr. Ingraham’s signature, denying that he ever made the remark above quoted; but the most interesting and convincing refutation the attack brought out was given at a meeting of the pupils of the school, June 5, when the following preamble and resolutions were unanimously adopted, signed by every member of the school, and sent to the “Recorder” for publication. The “Recorder” refused to publish them, and they appeared on the 10th in the “Boston Courier,” accompanied by an explanatory note sent by a committee of four of the pupils. The names of the committee who drew up the resolutions are H. S. Tewksbury, Mary E. Fessenden, Sarah Page and S. M. Underwood.

Preamble and Resolutions.

We desire to have it understood that we act in this matter entirely upon our own responsibility, the principal of the school being wholly unacquainted with our movements. The first that he or either of the assistants will see of this communication will be in the columns of the “Recorder.”

Resolved, That whereas several grave and unfounded charges appeared against our principal in the “Recorder” of June 3, we feel called upon to deny the truth of said charges before the public.

Resolved, That the most perfect and entire freedom of thought and inquiry is not only allowed, but encouraged, in this school; and that the sway of our principal, far from resembling that of the Jesuits, is no greater than that which the master mind of any literary institution would naturally hold over those who are daily receiving from his lips lessons of truth and wisdom, and who look up to him with the reverence and affection with which a child regards a beloved parent.

Resolved, That, as journalizing forms one of the regular exercises of the school, and as the journals are written with the understanding that they are to be examined at stated times, for the purpose of correction, the term *private* journal is a misnomer, and a term which no member of the school ever thought of applying to them.

Resolved, That it was with honest indignation that we heard the beautiful and impressive prayer with which our principal commends us to the care of our Heavenly Father and implores his blessing and guidance in our efforts for improvement, the reading of God's Word for our instruction, our own songs of devotion and ascriptions of praise to the Almighty, called a "*farce*;" that we consider this a slanderous imputation upon the piety of our principal, and a wanton outrage upon the Christian feelings of the whole school. Moreover, that we regard as appropriate and beautiful the *exhortation*, not prayer, at the close of the school, "Live to the truth!"

Resolved, That the conduct of *all* our teachers has been such as to inspire us with confidence and affection; that they labor to advance the cause of truth and to promote the best interests of education, and that they merit our sincere gratitude for the kindness and patience with which they have borne our faults and persevered in their endeavors to assist us in acquiring knowledge.

All honor to them for their goodness! That God may bless them as they deserve, is the earnest prayer of their pupils.

These resolutions, as before stated, appeared in the "Courier" of June 10. Noticing the date, it will be seen that Father Peirce's refutation and Mr. Ingraham's denial were not admitted to the "Recorder" till *after* these rejected resolutions appeared in another paper.

At the next biennial convention of the graduates (in 1848), appropriate and timely resolutions were adopted by past as well as present graduates, which showed the high appreciation all had of the school, and the esteem in which they held its principal and his associate teachers.

In April, 1849, Mr. Peirce was again compelled, by failing health resulting from his overwork and constant care, to resign the charge of the school to whose welfare he had devoted every power of his body and mind for eight years. At the festival given in his honor by the pupils of the school and the citizens of West Newton, in July, the leading educators in the State were present, and testified in unmeasured terms to his fidelity and great success. A purse of about \$500 was then tendered him by his many friends, towards defraying his expenses as delegate to the Peace Congress in Paris, which convened in August; and all felt, in parting with him, that to him belonged, if to any, the eulogium, "Well done, good and faithful servant!"

During the three months that intervened between the resignation of Mr. Peirce and the accession of his successor, Miss Lincoln, the

first assistant of the school, performed the duties of principal, Miss Watson and Miss Shaw being assistants.

REV. EBEN S. STEARNS, PRINCIPAL.

In September, 1849, Rev. Eben S. Stearns of Bedford took charge of the school. Mr. Stearns was a much younger man than either of his predecessors, but a person of large experience in teaching, having previously had charge of the Ipswich High School, of the Free Street Female Seminary in Portland, and for the five preceding years of the Female High School in Newburyport, where he had ably conducted a teachers' class, and thus gained experience as a teacher of teachers. Mr. Stearns proved himself a fit successor of Mr. Peirce and Mr. May. He was devoted, earnest, exact and gentlemanly, and won the cordial support of teachers and pupils. He had a nature of unusual gentleness, and a winsome humor that made him a delightful companion. As a teacher he inspired confidence in his pupils to do their best, while his recognition of any ladylike refinement in them was an inspiration to be true to his expectations. It seemed impossible to be rude or heedless under his observant eye. He impressed his pupils with the dignity of the teacher's work, and his influence upon them was lasting.

During his administration the school increased in popularity till it was overcrowded, when it became expedient to adopt more rigid examinations, and to extend the required time for attendance. A three-years course was also adopted. Thus the number in school was kept within a convenient limit, and the quality of the work was improved. Printed diplomas were first given to the class of 1850.

Mr. Stearns was obliged to spend some months in the South in the spring of 1851, on account of throat trouble, leaving the school under the care of his able assistants, Misses Pennell, Crocker and Whittimore. Part of a letter from him written to the school on the opening of the April term will be of interest. It is taken from the "Normal School Journal," and shows the spirit of the man and the nature of his work. Having written of the past and its uses, he writes of the future:—

Outspread before us lies its page of unsullied purity. . . . New hopes are the blossom wreaths that surround it, and guardian angels whisper encouragement and peace as they hold it out and beckon us to write. And write we must and ever shall; there is no escape. We write with the blood of the soul, indistinct, pale at first it may be, but ere long to blaze forth in brightness more dazzling than the sun and more enduring than if engraved on marble. Each letter, well formed or ill, each attempted erasure, each careless spot, each foul blot, remains. We write for *eternity*. What the record for the term will be I cannot know, you cannot tell. Each

will write for herself. Moment by moment you will be busy at the work, until the white page is entirely covered. Is it not, then, of the *utmost importance* that you begin *rightly*? . . . that you firmly resolve in the strength of God that you will do all things according to the strength you possess? that you will “serve God with perfect hearts and willing minds,” . . . avoiding every appearance of evil, and letting your lights shine to his most worthy praise? In every respect and by every one let the key-note be so struck that Heaven shall delight to listen to our song to the very end of the term.

REMOVAL TO FRAMINGHAM.

It soon became evident that some further measures must be taken to accommodate the school; and on May 13, 1852, an appropriation of \$6,000 was made by the Legislature to defray the expense of providing a more commodious site and building for the school, with the necessary appurtenances and apparatus. After some delay the Board accepted the proposition made by Framingham, and decided to locate the new school building at Framingham Centre. The town appropriated \$2,500 toward the building, the president of the Boston & Albany Railroad \$2,000 more, and inhabitants gave the land, five and three-fourths acres. The spot chosen for the building was “beautiful for situation,” on rising ground, affording extensive views, and giving opportunity for pure air and cool summer breezes; but it was somewhat removed from the populous towns, and two miles from the Boston & Albany Railroad, which had before made access so easy. This isolation affected in a marked degree the attendance upon the school, especially after the establishment of another normal school near it, and in a more convenient and populous locality.

MR. GEORGE N. BIGELOW, PRINCIPAL.

In September, 1855, Mr. Stearns resigned, to take charge of the Female Academy at Albany, and was succeeded by Mr. George N. Bigelow. Mr. Bigelow had been principal of the high school in Clinton, and had spent the two previous years in Europe for pedagogical study. “He had high acquirements in literature,” was very exact in little things, very orderly in school work, believed in normal schools, and liked to teach in one. A former pupil writes, “His faithfulness in detail, his versatility of talent and acquirements, with his perfect courtesy and kindly interest, can never be forgotten;” and another writes: “His desire to help young teachers and all who needed assistance and encouragement was characteristic of him through life, and he spared neither time nor personal effort in his unselfish desire to benefit them. His ideas of teaching were advanced and progressive.”

No event of great moment to the school occurred during his administration. It continued in its even course of useful service, and sent out many well fitted for their work. From the visitors' report of 1858 it appears that "there were more applications for teachers than could be supplied;" the school "gained favor with the public and increased in numbers."

But in the visitors' reports of the time were matters of yearly complaint: one, the difficulty of reaching the school building up the bleak road in winter; another, the inadequacy of the means of heating the building, the visitors finding it impossible to keep warm in any room there without overcoats. After a while, outside windows partly, though not entirely, remedied the freezing evil; but not till 1868 are better arrangements for heating spoken of.

There was another matter of complaint which would doubtless have been remedied, if the whole Board of Education had felt as did the two visitors, Mr. Mason and Mr. Washburn. In their reports are constant and reiterated complaints that the compensation of the assistants was far below that which their work merited. In 1864 they say, "We are unable to fully comprehend the justice of paying a female only one-half the salary of a male teacher for doing the same work equally well, with the cost of living about equal for both;" and again in 1866, they say, "They now perform the same service at less than half the price paid to male assistants of other normal schools." This discrimination in regard to salaries caused the resignation of several of the best assistants after a short service here, also of one of the principals.

MISS ANNIE E. JOHNSON, PRINCIPAL.

After the summer term of 1865 Mr. Bigelow was absent from the school for a few months, on account of illness. He resigned in September, 1866, and was succeeded by his first assistant, Miss Annie E. Johnson.

The new principal, Miss Johnson, had been Mr. Bigelow's assistant since 1861, and had shown herself fully competent to succeed him, having admirably directed the school during his absence the previous year. Miss Johnson was born in a little town in Maine, where, under the guidance of her father, a Presbyterian clergyman, was laid the foundation of her intellectual and spiritual growth. The family subsequently removed to Brunswick, and there she was favored by the college atmosphere, as well as by the direct instruction of more than one college professor. Previous to her appointment as assistant of this school, she taught in several private day and boarding schools, and in the public schools of every grade in Brunswick, from the primary to the high, being principal of the latter.

In an address given in Framingham on her accession as principal, ex-Governor Washburn said: "I congratulate you that by the experiment this day inaugurated your sex is at last to have one fair field in which to vindicate the confidence which the Board of Education, in behalf of the State, have, — that in the learning and skill and patriotic sentiment of her daughters the Commonwealth is to share an element of moral power which has never before been fully developed. The free States of Greece did not lose their independence so much from the lack of intelligence and love of liberty in their men, as for want of the influence, the counsel, and the equal companionship, of women."

In their next annual report, the visitors say: "In one thing the visitors of the Framingham school take special satisfaction in offering this their report of its condition the last year; and that is, in the entire success of its management by a *female principal and female assistants*;" and they then add, "If the value of labor is to be judged of by the measure of its results, upon what principle of fairness and equality can we justify the scale of compensation which prevails in the State in respect to our schools?"

Miss Johnson served as principal from 1866 to 1875, when she left to take charge of the Bradford Female Seminary, a position which she still occupies, and where her salary has more nearly corresponded with her services.

Re-establishment of the Practice or Model School.

Among the changes that marked Miss Johnson's administration, might be named the enlargement of the school building, the establishment of the boarding-house, and the re-establishment of the practice school, which had been discontinued since the removal of the school to Framingham. Up to that time, from the very first, the practice, or model school, as it was called, had been considered an absolutely necessary adjunct to the normal; and all the seniors were required, previous to their graduation, to spend more or less time teaching in it, at first under the direction of the normal principal, and later under a teacher elected to be its principal.

At the beginning of her administration, Miss Johnson secured a few children to come to the normal school for instruction; then she started a little school in one small room, which grew to a school of twenty pupils.

MISS ELLEN HYDE, PRINCIPAL.

When Miss Hyde took charge of the normal school in 1875, she made the practice school a special requisite of normal training. It now numbers about a hundred pupils, occupies a large part of the first

floor of the school building, and is provided with suitable appurtenances and apparatus for thorough teaching.

The pupils come from the village and other parts of the town, and some from neighboring towns. During the last year of the course each normal student teaches in the school about four weeks under the eye of a special critic and teacher of methods; additional opportunities for future practice have been secured through an arrangement made with the Framingham school committee, by which the students may be sent to teach in the several town schools. This practice under a teacher's eye is of great advantage, not only to the students themselves, but it affords a means by which the principal can ascertain their probable future success. Said a school superintendent, not long since: "I am sometimes disappointed in teachers sent from schools which do not have a practice department; but I accept a recommendation from Miss Hyde with perfect assurance that her pupils will turn out to be just as she rates them. Miss Hyde, with the practice school, has fully done her part to secure the confidence of committees in normal graduates as a class throughout the State. She has insight into character, and observes her pupils in actual work."

Crocker Hall was built in 1886, as an additional home for the students, but was partially destroyed by fire on Christmas Day, 1887. It is worthy of note that the students who were in the house at the time behaved admirably, putting into execution the directions before received regarding their conduct in case of fire. If they had not done so, some lives might have been lost; for the building immediately filled with dense smoke. The towns-people generously opened their doors and took the homeless in; it was by the heroic efforts of Framingham citizens that the furniture was saved. Crocker Hall was repaired, and has been in use since February last. The Legislature appropriated \$105,000 for repairs on the hall, and for the erection of a new school building, which is to be named May Hall, in honor of Miss Abby W. May.

Of Miss Hyde, the present principal, it should be said that one characteristic of her administration is the self-government of her pupils. Old-time barriers, such as one used often to see between teacher and pupils, are broken down, and instead great mutual confidence is established. To the question asked by an interested observer, "Doesn't this reliance upon self-government sometimes lead to serious trouble?" the answer was: "No; we've never had any serious trouble, and it is better to run the risk of an occasional irregularity than to subject the pupils to the belittling effects of a great many rules."

For a year from September, 1885, Miss Hyde was absent, during which time Miss Amelia Davis, her first assistant, admirably filled

her place, an evidence both of her fitness for directing, and of the excellent condition in which Miss Hyde left her work.

ASSISTANT TEACHERS.

Much of the prosperity of the school has been due to those who have served as assistants, and it would be a pleasure to enumerate them all and speak of their various characteristics ; but that is impossible. Little more can be done than to name those who have left us entirely, — gone to that other school for whose entrance examination we are all by our life work now preparing. A full list of assistants is given at the close of this paper. Among the starred names are several who taught less than a year. Others who taught for longer periods are : —

Caroline Tilden, but for whose promised assistance Mr. May would never have consented to take the school. Miss Tilden had been fortunate in having Mr. Tillinghast of the Bridgewater Normal School for her teacher, and was especially well versed in mathematics. She was brilliant, thorough, enthusiastic, self-sacrificing, and won and kept the love and admiration of all who knew her. With a mind too active for her body, her life burned itself out, after teaching in the school less than five years.

Miss Sarah Watson, her pupil and successor, was also a pupil of Father Peirce's in Newton and in Nantucket, and possessed some of the characteristics of both her teachers. She had many admirable teaching qualities, and won much praise during her short stay, which ended in 1849.

Of the other teachers whose names are starred, except Miss Crocker, I can only repeat what has been gleaned from others.

Miss Ellen G. French, who resigned in July, 1866, died at the age of twenty-two. She had a strong, beautiful character, and was a thorough, earnest worker, always accomplishing in her classes what she had planned.

Miss Ada B. Sturtevant, who resigned in April, 1866, died young. Her powers were brilliant, and early ripened.

Miss Nancy J. Bigelow was the right hand of Mr. Bigelow when he was principal, and when his health failed, she, in reality, though not in name, took his place. She resigned when Mr. Bigelow resigned, in 1866.

Mrs. Frances A. Rich left in 1867. She was a good, thorough teacher of varied attainments. Her dramatic and elocutionary powers were worthy of note.

Miss Isabel Tenney left in 1870 ; was earnest, enthusiastic, and wore herself out in her work.

Miss Emily P. Hastings, who left in 1872, taught drawing, and

gave promise of future success, which death prevented from being fulfilled.

Miss Marie C. Ladreyt left, and died in 1883. She taught French in the school for several years, possessed a strong, clear mind, varied and broad knowledge, was a brilliant woman and an unusually successful teacher. What she felt to be the great achievement of her life was an essay in French, of three hundred and seventy printed pages, on the public-school systems of France and the United States, which gained the first prize (of five thousand francs) offered by M. Pereire, a French philanthropist. The judges were all distinguished Frenchmen; among them M. Carnot, Emile de Girardin, Camile Sée and M. About. There were many competitors, all but Miss Ladreyt, men, and natives of France.

Miss Lucretia Crocker's name has been reserved for the last, because, though one of its early teachers, her interest in the school continued throughout her life, and she still seems to belong to the school. Immediately after her graduation in 1850, she assumed the duties of assistant, and until her resignation in 1854 she had a marked influence in all departments of the school. Miss Brackett voices, I am sure, the sentiment of all the graduates of her time, when she says, "The training I had, and the professional spirit I gained at Framingham, notably from Mr. Stearns and Miss Crocker, and the general influence of the school, have gone far to make of me a teacher as far as one can be made." Mr. Stearns relied upon her for counsel and advice, and once said that many a time after she had left, he wanted to turn to her and say, "Would you?" At Mr. Mann's solicitation she taught a year in Antioch, after which, duties to her home recalled her to Boston. In 1873, she and two other women were elected members of the Boston School Board. The opposition which their presence encountered, and the studied coolness of some members and officers of the Board, were met by Miss Crocker with her usual courteous dignity. She performed the duties of the office with singleness of purpose till 1876, when she was appointed a supervisor of the Boston schools, which office she held for ten years to the time of her death, October, 1886. She endeared herself to all, especially to the women teachers. She was modest and retiring, but conscientious, persevering, and tireless in purpose, doing more by her strong and earnest spirit than many a one with stronger body has accomplished. She excited a lively interest in the study of natural history, and did much to secure its proper teaching in the schools. She prepared a manual for teachers, entitled "Methods in Geography," which is an admirable treatise. At her death she was vice-president of the Framingham Alumnae Association.

And other names are starred beside those of teachers. Are they less worthy of mention here? Who can tell? What finite power can take the measure of a deed, or weigh its motive?

“One feast, of holy days the crest,
I, though no churchman, love to keep :
All-Saints — the unknown good that rest
In God’s still memory folded deep ;
The bravely dumb that did their deed,
And scorned to blot it with a name ;
Men of the plain, heroic breed,
That loved heaven’s silence more than fame.”

EMINENT GRADUATES.

Of all those graduates of the school, whether living or not, who have done marked service for education or for humanity in varied directions, it would be pleasant to speak. And who have done more for this school than its members of the first year? Had they not shown themselves worthy pupils of a worthy teacher, where would our normal school now be? All honor to them, that they have kept their interest in the school undiminished for all these years!

We might go on citing one after another the names of those who have won laurels for themselves and for this school. The old Bay State has indeed been paid a thousand times by these many workers for all she has expended for their training.

LENGTH OF TERM OF SERVICE.

How long do these normals teach? Nobody knows definitely; but in 1879, when the last catalogue was published, as far as could be ascertained the average term of service was six and three-fourths years; and this does not include the private family schools which so many have established. Quite a number have rounded out their forty years of teaching; one, a member of the first class, who was present at the semi-centennial celebration, has taught forty-seven years.

EARLY FRIENDS AND VISITORS OF THE SCHOOL.

Among the early friends of the school should be named one stanch and true man who was not mentioned at the quarter-centennial; he well merits recognition,—Hon. Joseph W. Ingraham, an early member of the Board of Education, and also of the Boston school committee, and who, at a time when it was no recommendation in the eyes of Boston officials to be normally trained, succeeded in placing some of the best normal graduates in the primary schools at the North End, where they did most excellent service. An unbounded debt of

gratitude to Horace Mann is due from all connected with this school. He was so friendly, and so well pleased with its methods, that he took up his residence in West Newton, and became its constant visitor. To their home Mr. and Mrs. Mann always made the normals welcome. There came one Chloe Lee, a colored woman, to enter the normal; failing to find a boarding place in town or a room in which to keep house, Mr. and Mrs. Mann welcomed her to their home; and when some one said to Mrs. Mann, "What are you going to do with that colored girl when some of Mr. Mann's eminent friends come to dine with him?" said she, "If they do not wish to eat with Chloe, they can sit at the second table."

And Mrs. Peirce, — what would the early life of the normal school have been without her, the hopeful, sympathizing counsellor and efficient aid of Father Peirce in all these trying years? Her interest was ever active, and continued throughout her long life; and even after her death it did not cease, for she left in trust means which, loaned with care, have kept so far, and can keep perpetually, two or three worthy Massachusetts girls at their normal studies.

Dr. George B. Emerson and Mr. William B. Fowle, the former the treasurer of the Board of Education, were frequent visitors and firm friends of the school. Among its later benefactors should be named Hon. David H. Mason and Hon. Emory Washburn, for ten and seven years respectively its official visitors. Both gentlemen believed women could do good work in fields which men had monopolized, and it was through their untiring efforts that Miss Johnson was placed at the head of the school. Their care of the school was truly paternal. They seemed to have a personal interest in every pupil as well as teacher.

Hon. Henry Chapin of Worcester and Hon. C. C. Esty of Framingham showed an interest in the school, just as living and helpful as that of Messrs. Mason and Washburn.

Dr. Miner's helpfulness comes not only from his devotion to the school as an educational institution for training teachers, but from the valuable suggestions which a long life full of rich and varied experiences enables him to give, and also from the fact that he is a natural teacher, and his presence in the class room makes the one who is conducting the exercises feel that every step of her work is being followed by wise, just and kind criticism.

Miss Abby W. May's devoted service to the school was stimulated by the sympathy which must bind a woman, interested in women and women's work, to a school made up of, and controlled by, women. Hardly a Christmas passed, after her connection with the school, without her coming to wish her girls a "Merrie Christmas," and bringing them some valuable gift, some book or picture to instruct

and uplift, some gave to rest them when they turned from their severer work. But her most valuable gift was an unconscious one to her, — her strong, devoted, inspiring personal self.

We have pictured the school in its struggles to gain a foothold when the way was rough, and the stones slippery, and the shadows dark, and have outlined its course since the way has become smooth and the beaten path full of sunshine. Now our normal schools stand on a firm foundation, and have come to stay; they are an acknowledged necessity, and everybody says the best teacher is the trained teacher. But, in our joy at this full recognition of the value of the trained teacher, we must not cease our vigilance. In times of greatest prosperity lurks our greatest danger, — the danger of self-satisfaction, of counting ourselves to have attained, when a wide field of progress is still before us. Great as have been the improvements in methods these last years, no doubt, as we gain greater knowledge of mind and matter, better and better details of method may be attained. So, modestly, and with a willingness to gain knowledge and skill from any source, however humble, let those of us who teach be learners still, and may those who think they simply learn, fully realize that whenever their minds reach out to influence others, by just so much they themselves do inevitably teach.

ASSISTANT TEACHERS.

The following are the names of those assistants who have taught in the school one year or more, given in the order of their service: —

From 1839 to 1842, Mr. Peirce had no assistants.

Those who taught with Mr. May from 1842 to 1844 were: Caroline Tilden * and Electa N. Lincoln; teacher of music, Joseph Bird.*

Those who taught with Mr. Peirce from 1844 to 1849 were: Caroline Tilden,* Electa N. Lincoln, Sarah Watson; * teachers of music, Joseph Bird,* Lowell Mason.*

Those who taught with Mr. Stearns from 1849 to 1855 were: Electa N. Lincoln, Rebecca Pennell, Lucretia Crocker,* Georgiana Whittemore, Mary E. Bridge, Elizabeth G. Hoyt, Abby C. Gardner, Caroline G. Greely; teacher of music, E. R. Blanchard.

Those who taught with Mr. Bigelow from 1855 to 1866 were: Elizabeth G. Hoyt, Anna C. Brackett, Frances Merritt, Lois T. Caswell, Nancy J. Bigelow,* Frances E. Wadsworth, Martha E. Young, Annie E. Johnson, Frances A. Rich,* Ellen Hyde, Ada B. Sturtevant,* Ellen Gertrude French,* Fannie Whitcomb; teacher of music, Mr. O. B. Brown.

* Deceased.

Those who taught with Miss Johnson from 1866 to 1875 were: Frances A. Rich,* Ellen Hyde, Charlotte C. Stearns, Elizabeth Hasbrouck, Irene A. Poole, Abby P. Kelley, Amelia Davis, Ellen A. Chandler, Emma F. Moore, Isabel C. Tenney,* Julia C. Clark, Sabrina Jennings, Maria S. Eaton, Abbie G. Caldwell, Emily M. Bullard, Christine Chaplin, Emma F. Locke; teachers of music, Mr. O. B. Brown, Miss Isabel C. Tenney* and Miss Charlotte H. Osborne.

Those who have taught with Miss Hyde since 1875 are: Amelia Davis, Julia C. Clark, Sabrina Jennings, Maria S. Eaton, Abbie G. Caldwell, Mary C. Conant, Mary L. Eastman, Mary J. Studley,* Isabella L. Wight, Mary G. Montgomery, Jeanette W. Williams, Sarah E. Pratt, Margaret Montgomery, Annie M. Kittredge, Susan P. Burnham, Mary L. Bridgman, Mary L. P. Shattuck, Ella J. Gibbs,* Harriet Grotecloss, Henrietta L. Graves, Jennie E. Ireson, Emma F. Locke, M. Louise Field, Elizabeth Creveling, Marie C. Ladreyt,* Stanislaus Danion; teachers of music, Miss Charlotte H. Osborne, Mr. F. W. Riley and Mr. W. S. Tilden.

* Deceased.

THE BARRE-WESTFIELD SCHOOL.

The school at Lexington was opened for the reception of students July 3, 1839. The one at Barre began its first session Sept. 4, 1839. From this it appears that the schools at Lexington and Barre, the oldest State normal schools on this continent, were established on the same day, and that the school at Barre was only two months and one day behind the Lexington school in the race of its active life.

SAMUEL P. NEWMAN, FIRST PRINCIPAL.

The principal of the Barre School was Samuel P. Newman, a graduate of Bowdoin College, a professor of rhetoric in that institution, and for several years its acting president. He was one of the original members of the American Institute of Instruction, and took an active part in preparing the memorial of that Association to the Massachusetts Legislature, in favor of establishing normal schools.

Professor Newman was an accomplished scholar and a successful teacher. His assistants were: Samuel C. Damon, afterwards seaman's chaplain at Honolulu, Sandwich Islands; Nicholas Tillinghast, the first principal of the normal school at Bridgewater; Edwin E. Bliss, afterwards missionary at Marsovan, Turkey, and James E. Russell, afterwards assistant teacher in the Lowell high school. The teachers of penmanship were Paul W. Allen and A. R. Kent. On leaving the normal school, Mr. Allen became practising physician in Barnstable, Mass.

The school at Barre occupied rooms fitted up for it in the town hall. The State provided a boarding hall, where the students attending the normal school could be supplied with good board at cost. The whole number of different pupils connected with the Barre school was one hundred and sixty-five, — seventy-five young men and ninety young women.

The first normal schools in the State were established for three years, as an experiment. The Board of Education offered to try one experiment at Barre, provided a school-house should be furnished free to the State, and five hundred dollars should be raised to aid in maintaining the school. The

town provided the school-house, raised the required sum of money, and the experiment of preparing teachers for the duties of their office by a professional training at the expense of the State, was made.

OPPOSITION TO NORMAL SCHOOLS.

The normal schools of Massachusetts in their youth were not popular institutions. Carter and Brooks and Horace Mann believed in them from the first; but there were not a few who believed that theory is fatal to good practice, and that tradition and experience are the only safe guides for the instructors of youth to follow. The Boston school committee once made two objections to employing a superintendent of schools, who should spend a part of his time in training the teachers to teach: 1. Because "such training would lead to repeated experiments of new methods; 2. It would lessen the respect of pupils for their teachers, when it should be found that, like themselves, they were the subjects of instruction."

In 1840 the legislative committee on education made a report against the Board of Education and the normal schools, and in favor of repealing all acts establishing them. The bill presented to the Legislature by the committee was defeated in the House by a vote of 245 to 182.

After three years' trial of the normal schools, the Board appointed a sub-committee of its members, of which William G. Bates of Westfield was chairman, to report upon the results produced. The report declared the experiment had been eminently successful, and recommended an appropriation of \$20,000 for the further support of the normal schools.

On the death of Professor Newman, which occurred in 1842, the school was suspended, and was never afterwards opened at Barre.

RE-ESTABLISHMENT AT WESTFIELD.

The normal schools after three years' trial seemed to have passed the experimental stage, and to require permanent locations. Barre was then remote from the railroads, and far distant from the western part of the Commonwealth. The Board waited two years for some town on the line of the Western Railroad farther west than Barre to make an acceptable offer for receiving the school. At last Westfield made the

offer, and the school was reopened in that town Sept. 4, 1844, in one of the rooms of the old academy. Here it remained for one term, when it was removed to rooms prepared for it in the town hall. The school occupied these rooms until Sept. 3, 1846, when a building of its own was completed and dedicated to its service.

EMERSON DAVIS, PRINCIPAL.

During the two years of its existence in Westfield, before occupying its own rooms, the normal school was under the general charge of the Rev. Dr. Emerson Davis, at that time pastor of the Congregational Church, Westfield. He visited the school for a few hours every day, teaching some of its classes, and delivering familiar lectures on the science and art of teaching.

He had been, for many years before the normal school was established, the principal of one of the most celebrated secondary schools of his time. Dr. Davis was familiar with the philosophy and art of education, and with the condition of the public schools; and he knew that the only way to improve them was to improve the school teachers, by giving them a special training for their work.

On the establishment of the State Board of Education, James G. Carter was the first member in order of appointment, and Dr. Davis was second. He served from May 25, 1837, to May 25, 1839, and was reappointed in August, 1847, serving the full period of eight years. The records of the Board show that he was an active and influential member during all the years of his service. Dr. Davis will be remembered as an intelligent, earnest friend of the Westfield Normal School, and as an able advocate of popular education and good morals.

Prof. William Clough, a graduate of Harvard College, and a teacher of good reputation, was assistant under Dr. Davis during the first year of his administration, and Rev. P. K. Clark during the second.

The school was small during the early years of its existence, for it was an expression of a new idea to the conservative people of Massachusetts. They thought it might do mischief, by substituting fanciful methods of teaching and study for those which time had honored with an almost universal approval.

NEW BUILDING.

On Sept. 3, 1846, the normal school was admitted to its new home. The new building was on that day dedicated to the service of popular education, by an eloquent address delivered by Dr. Heman Humphrey, at that time president of Amherst College, and a member of the State Board of Education. He closed his address with the following words:—

Citizens of Westfield! We congratulate you upon your educational enterprise and privileges. Few towns in the Commonwealth have acted upon a wiser forecast. Besides four primary schools, with doors wide open to every child, however poor, you have one of the oldest academies in the State; not waxing and waning, as many do, but always flourishing under able teachers and a supervision which forbids its decline. With these high advantages you might have rested satisfied. But when the western normal school was to be permanently located, you entered into an honorable competition for the additional facilities which it would bring to your doors. Favored by your natural advantages, and entitling yourselves by liberal subscriptions to the preference, you succeeded. The school, which had been for some time suspended, was brought here, and now this new and beautiful edifice is to receive it. Upon your aid in accommodating the scholars from abroad, and guarding them against those moral dangers which so easily beset the young, we confidently rely. You will not disappoint our expectations. You will cherish this seminary as you do your schools and academy. To the cause of learning we dedicate it, to the care and benediction of Heaven we commend it. May it more than answer the sanguine hopes of its projectors, in furnishing teachers of a high order for many generations.

The people did not disappoint his expectations. They furnished the normal students with good homes, at the nominal price of \$1.75 a week, and exercised the same watchful care for their comfort and safety that good parents exercise over their own children.

DAVID S. ROWE, PRINCIPAL.

Mr. David S. Rowe of Rockport, Mass., and a graduate of Bowdoin College, was elected permanent principal in September, 1846, and entered upon his term of service immediately after the dedication of the new school-house. Mr. Rowe was a man of decided convictions, emotional, and endowed by

nature with a strong will. He was an accurate scholar, a faithful teacher, and entertained a strong and abiding love for his pupils. He was more skilful in communicating knowledge to others, than in leading them to investigate for themselves. The instruction during his administration was academical in form, rather than professional. The time had not yet come for the special and systematic study of principles of teaching, and methods founded upon them. Under Mr. Rowe's administration the school increased in numbers, and improved in the character of its exercises.

His assistant teachers for the first term were: Miss Rebecca M. Pennell, assistant in the regular course of instruction; Mr. Truman Crossett, teacher of music; Miss Charlotte G. Shepard, principal of model school. The other assistants during Mr. Rowe's administration were Miss Lydia N. Mosely, Miss Mary W. Howes, Miss Jane E. Avery, Edward G. Beckwith, Sylvester Scott, George A. Corbin, Almin B. Clapp, and John W. Dickinson. Teachers of vocal music were Col. Asa Barr and George F. Miller. Teachers of penmanship were J. A. Martin, D. F. Brown, and James L. Martin.

These teachers were supposed to be the best that could be found in the country at that time. At least it may be said of them, they were faithful in doing their duty as they understood it, in the early days of normal school work. The results of their labors, as shown in the schools taught by the graduates of the normal classes, furnish good proof of fidelity on the part of these early instructors in our normal school at Westfield.

The first catalogue of the school was published in 1847. It contains the names of some of the most earnest students and the most successful teachers that ever entered the school or graduated from its course of instruction. It should not be forgotten that they were pioneers in the educational reforms which have since prevailed in our methods of teaching in the public schools.

THE CONDITIONS OF MEMBERSHIP.

These were established by the Board of Education. Applicants for admission to the school, if males, must be at least seventeen years of age, and sixteen at least if females. None were to be admitted for less than two full terms, which must be

successive terms, except in case of those who wished to be absent, in the mean time, for the purpose of teaching. There must be an explicit declaration that the applicant intended to become a teacher. A certificate of good moral and intellectual character must be presented to the principal. All were required to sustain an examination, satisfactory to the principal, in reading, spelling, writing, arithmetic, geography and grammar, previous to entering the school. Candidates must be present the first week of the session, unless their absence was beyond their control. Those qualified as above required, if they belonged to the State, and intended to teach in the State, were to be admitted free of tuition. Teachers from other States, who joined the school, and those who belonged to the State, but designed to teach elsewhere, were to be charged \$6.00 a term, tuition, including the use of books.

COURSE OF STUDIES.

The topics enumerated in the first formal course of studies were : —

1. *Reading of the Scriptures daily.*
2. *Orthography.* Fowle's Common-school Speller, McElligott's Analyzer, and Worcester's Dictionary; also daily exercises in etymology, as connected with spelling.
3. *Enunciation and Reading.* Tower's Gradual Reader, Russell and Goldsbury's American School Reader, and Leavitt's Fourth Book.
4. *Writing.* Exercises given by the principal.
5. *Physiology.* Cutter's and Jarvis's.
6. *Drawing.* Schmidt's.
7. *Arithmetic.* Thompson and Greenleaf.
8. *Geography and Map Drawing.* Fowle's and Bliss's, with Felton's, Bliss's and Mitchell's Outline Maps.
9. *Grammar.* Wells's and Greene's, also Greene's Chart.
10. *Algebra.* Day's and Thompson's Algebras, also Tower's Mental Algebra.
11. *Geometry.* Playfair's Euclid.
12. *Philosophy.* Olmstead's.
13. *Phonography.* Andrew's and Boyle's works.
14. *The Globes.* Problems.
15. *Theory and Practice of Teaching.* Page's, Abbott's and Palmer's treatises.

Vocal music was taught three times in the week. Written composition was a weekly exercise for the whole school. There were also frequent exercises in preparing abstracts of the several studies.

A model school of about seventy-five pupils furnished the pupil teachers an opportunity, after they had attended the normal school one term, to teach one hour a day for practice. This was done under the personal direction of an experienced teacher.

The school year was divided into three equal terms of fourteen weeks each. At the close of each term there was a public examination of all the classes in the studies pursued during the term. The examination was conducted by the visitors of the school, with reference to testing the pupil's knowledge of the subjects he had passed over, rather than to determine his ability to teach the subjects to others by a rational method.

Mr. Rowe resigned his office in March, 1853, to take charge of a private school at Tarrytown, N. Y. Mr. Dickinson, at that time first assistant teacher in the school, was appointed to take charge of it for the remaining months of the school year, or until the close of the summer term. The assistant teachers were Mr. Almin B. Clapp, Miss Eliza C. Halladay and Miss Melissa Woodbury. The school made a creditable appearance at the examination at the close of the school year, notwithstanding the loss caused by the absence of its principal.

WILLIAM H. WELLS, PRINCIPAL.

Mr. William H. Wells was appointed to the place made vacant by the resignation of Mr. Rowe, and entered upon the duties of his office in September, 1854. Mr. Wells was a native of Tolland, Conn. He was educated in the public schools. From 1836 till 1847 he was assistant in the Teachers' Seminary, Andover, Mass., and from 1848 to 1854 he was principal of the Putnam free school at Newburyport. He was principal of the normal school at Westfield from September, 1854, to April, 1856, when he resigned his place, to become superintendent of public schools in Chicago, Ill. Mr. Wells acquired a good reputation as a teacher and as an executive school officer. His genial temper, his enthusiasm, and his

sympathetic spirit, made him popular with his pupils and his associate teachers. He had a good degree of organizing power. During his short term as principal of the Westfield school, he made out a new course of studies, and established a formal plan of conferring degrees upon those who completed the required course of instruction.

The school was conducted during the remainder of the term by Prof. Alpheus Crosby and Mr. Dickinson, assisted by Miss Arexine G. Parsons and Miss Eliza C. Halladay. Professor Crosby was one of the most accomplished scholars in the country, and a Christian gentleman of the highest type. Through the earnest efforts of the teachers and the cheerful co-operation of the students, the work of the term was completed with satisfactory results.

JOHN W. DICKINSON, PRINCIPAL.

At a meeting of the Board of Education, held July 26, 1856, Mr. J. W. Dickinson, assistant, was appointed principal of the Westfield school, in place of Mr. William H. Wells, resigned. Mr. Dickinson received his elementary education in the public schools of South Williamstown, and his preparation for college at Greylock Institute, South Williamstown, and at Williston Seminary, Easthampton. He entered Williams College in September, 1848, and graduated with the classical honors of his class in August, 1852. In September following he received the appointment of assistant teacher in the Normal School at Westfield. He served under Mr. Rowe, principal, until March, 1853, and under Mr. Wells until April, 1856. During these four years of service as assistant teacher he made the principles and methods of teaching the subjects of careful study and practice. The old course of study was reformed by rearrangement and additions. The natural sciences, chemistry, physics, rhetoric and English literature, were assigned a place among the regular branches of learning to be pursued. The philosophy and art of teaching became the chief subjects of study during the last half-year of the course. All subjects and objects were to be taught and studied by topics, and in accordance with the analytic objective method. The recitations were to be conducted by the pupils, who were required to teach the review lesson to one another, as before it had been taught to

them. These changes in the course of studies and in methods of teaching required additional means for use, so that there might be no violation of the principles upon which the method was founded. This turned the attention of the school to collecting such objects, illustrative apparatus and reference books, as were necessary for carrying out a thorough system of objective teaching and study.

The branches of learning required to be taught in the public schools were taken up with reference to a preparation to teach them to others, in accordance with the laws of the mind that control its activity in acquiring knowledge and development. That the normal students might have an opportunity of observing the application of their methods to teaching children, the town provided the school of observation, in which experience could be associated with theory.

The results of these changes soon appeared in the professional spirit excited in the different departments of the normal school, in the improved work of the graduates, and in the new interest which their good example produced throughout the State in the study of the philosophy of education. The Westfield Normal School is said to be the first to show that all branches of learning may be taught by the same objective method, and that elementary knowledge should be taught with special and constant reference to the scientific knowledge which is to be occasioned by it.

ASSISTANT TEACHERS.

During these years the principal of the school was assisted by able and faithful associates, and it was easily perceived that the same spirit and method prevailed in all the class exercises.

Miss Eliza C. Halladay was assistant teacher from September, 1855, till December, 1856. She was a graduate of the school, and, when appointed one of its teachers, had already acquired a good reputation as an instructor.

Mr. James C. Greenough was first assistant from September, 1856, to July, 1872, when he resigned to take charge of the State Normal School at Providence, R. I. Mr. Greenough was noted for his devotion to the duties of his office, and for his skill in the application of the objective method of teaching.

Miss Harriet A. Worth was mathematical teacher for a few months only in 1856.

Miss Dora C. Chamberlain was an assistant from September, 1857, till July, 1860. She was a model teacher, and greatly beloved by her pupils and by all who knew her worth.

Mr. William B. Green taught in the school from September, 1858, till July, 1860. He inherited some of the mental attributes of his distinguished uncle. He had a natural fondness for mathematical studies and for English grammar, and he acquired great skill in presenting these topics to others.

Mr. Philo M. Slocum was for some time an assistant pupil-teacher. During this time he had charge of the classes in natural history, physiology, chemistry and physics. He was appointed permanent teacher in 1860. While a student in the school, Mr. Slocum attracted the attention of his teachers and classmates by the genius he exhibited in inventing new ways of illustrating his topics as he taught them to others. Secretary White employed him frequently to teach in the State Teachers' Institutes, and considered him to be one of the most successful teachers of elementary science in the State. It was at this time that the Westfield school became interested in preparing its pupils to teach the elements of natural science by a systematic use of the objective method.

Miss Emeline Parsons, a graduate of the school, was appointed one of the teachers in September, 1860, and resigned in July, 1864. She was an accurate scholar, a thorough and conscientious teacher.

Mr. Joseph G. Scott entered the normal school as a pupil in 1855, and graduated at the close of the summer term of 1856. After graduating, he was elected principal of the Hitchcock free high school, Brimfield, Mass. His success as a teacher attracted the attention of the Board of Education, and he was transferred to the normal school, and became one of its teachers in November, 1861. Mr. Scott was by nature a scholar and teacher. He was an accurate observer, and skilful in preparing his illustrations for his class exercises. He left a fine collection of birds and other natural objects for the use of the normal school, all of which he prepared with his own hands. He was a grammarian, a mathematician, and possessed considerable musical talent. He was a faithful teacher, quiet and unassuming in his manner, always preferring the simple duties of the class room to the more prominent work of general supervisor.

He will be held in remembrance by all who have known him as an instructor or personal friend.

Miss Malvina Mitchell graduated in the class of 1862. She was appointed teacher in September of that year, and resigned her place on account of ill health, in 1869. Miss Mitchell was distinguished for her scholarship, her skill in preparing class exercises, her facility in representing objects by outline drawings on the blackboard, her consistent adherence to the principles of true teaching, and for her enthusiastic manner of communicating instruction.

Miss Adelaide V. Badger was a member of the graduating class of 1864. Her success as a pupil led to her appointment as teacher soon after her graduation. She exerted a great and good influence over her pupils by the qualities of her intellect and her heart. The one made her a successful teacher of the branches of learning assigned to her department in the school, the other enabled her to present to her pupils an example of a life worthy of imitation. Miss Badger continued in office until 1868, when she resigned to occupy another place, different in kind from the one she left, but equal to it in its opportunities for usefulness and enjoyment.

Miss Ella E. Catlin was an assistant from September, 1867, till July, 1870; Miss S. Eleanor Mole, from 1871 till 1875. These favorite teachers, in the constitution of their minds, in their intellectual habits, and in their ability to impart professional instruction to the young teachers in their classes, bore so close a resemblance to Miss Badger that an account of one is an account of the other two. They were both graduates of the Westfield school, and were appointed teachers immediately after their graduation.

Miss Laura E. Prentice was appointed teacher of modern languages and English literature in the school in 1870, and continued to perform the duties of that office until 1886. Miss Prentice had a thorough knowledge of the French and German languages, and a preparation that enabled her to teach them to others in the most approved way.

The normal school was always liable to be disturbed by the resignations of its female teachers.

Miss Sara F. Tobie was employed to teach the classic languages to optional classes from 1870 till 1875. She brought

to her department ripe scholarship, a highly cultivated taste, refined manners and a noble spirit.

Mr. J. Silas Diller, after graduating with high honors, became a teacher in the school in 1873. He early manifested a fondness for physical science. While a student he became familiar with the true method of investigating natural phenomena, and was accustomed to spend his leisure hours in the practical application of his method. He resigned his place in the normal school in June, 1878, and entered the scientific school at Harvard College. On graduating he received a scholarship from the college, which enabled him to study in the German schools for three years. At the close of this course he returned, and was appointed to an important place on the United States Geological Survey. He has already distinguished himself by his independent investigations, and by his writings on subjects connected with his studies.

Mr. Alfred C. True was elected classical teacher September, 1875, and continued in office until June, 1881. He has since that time occupied important positions as teacher of the ancient languages, and always with more than ordinary success.

Miss Nannette A. Stone was the teacher of reading and vocal music from September, 1875, till July, 1876.

Mr. Middleton Smith was a pupil-teacher during the year 1876.

Miss Arexine G. Parsons and Miss Maria Spalter were the teachers of industrial drawing, the first from 1856 till 1873, the latter from 1873 till 1881. They did their work so well, even before the Normal Art School was established, that the art master, Mr. Walter Smith, was accustomed to say, as he examined it, that he had no unfavorable criticisms to offer.

Miss Elvira Carver entered the school as teacher in February, 1868, Miss Laura C. Harding in 1875. They have both achieved a good reputation as normal teachers. They may still be found in their places, conducting their classes with great fidelity over the course of studies and exercises arranged for their departments of instruction, and always in harmony with the methods of true teaching.

A brief historical sketch has been given of the teachers of the normal school at Westfield, from its establishment in 1839, through the years until 1877. The value of their services

and the influence of their lives may be known by the results which their teaching has produced. The graduates of their classes have gone out into all countries to teach as they were taught. Since they began their work, methods of teaching have been reformed; better ideas of school life have been introduced into the minds of the people; the public schools have grown in public favor; the normal schools themselves have become objects of profound respect; and the school children have been permitted to enjoy the inestimable privilege of receiving instruction adapted to their developing natures.

MODEL SCHOOL.

The Board of Education, on the establishment of the normal schools, thought it necessary to connect with each a model or training school. The present normal school building was constructed with reference to such an arrangement, and a model school was maintained in it from 1844 till 1855. The relations of this school to the town and to the normal school were never entirely satisfactory, and they were dissolved in 1855, leaving the normal school to obtain its experience by practice upon its own members.

After this change, the Westfield school turned its exclusive attention to the study of the philosophy of teaching; to gaining a technical knowledge of the branches of learning taught in the schools; to preparing such courses of study as are the right occasions for the acquisition of useful knowledge and right mental development; and to training the pupils to teach, by requiring them to recite all review lessons in the form of teaching exercises. This method of work produced good practical results, and yet it did not furnish an opportunity for an experience in teaching and controlling a school of real children. To supply the want, as far as possible, a school of observation was organized in 1866, and so related to the normal school that its principal could, by permission from the town school committee, nominate the teachers, suggest a course of studies and exercises, and the method of teaching that should be practised.

The normal pupils were granted the privilege of observing the operations of this school, and of teaching some of its classes. The school of observation was an important adjunct of the normal school. It enabled the normal pupils to add experience

in teaching to their knowledge of its principles. Some of the elementary teachers employed in this school were models worthy of imitation. Miss Mary Kingsley, Miss Charlotte Deming, Mr. Wm. H. H. Tuttle, Mr. John Haldeman and others, will be remembered by the pupils they taught, and by the young teachers who observed their methods, for the interest they excited in the pursuit of knowledge, and in acquiring the ability to communicate it in the best way to others.

JOSEPH G. SCOTT, PRINCIPAL.

Mr. Dickinson left the school in May, 1877, to accept the office of secretary of the Board of Education, and Mr. Scott, at that time first assistant teacher, was appointed principal. His associates were Mr. Arthur Hinds, Mr. Frederick W. Staebner, Mr. Frank W. Smith, Miss Elvira Carver, Miss Laura C. Harding, Miss Laura E. Prentice and Sara M. Kneil. Miss A. Maria Spalter, Miss Clara Wilson, and Miss Annie R. Slafter followed, as teachers of industrial drawing. Finding the responsibilities and duties connected with the general management of the school too great for his physical health, Mr. Scott resigned the office of principal in January, 1886, to accept again the position of associate teacher. He finally severed his connection with the school altogether in February, 1889.

JAMES C. GREENOUGH, PRINCIPAL.

Mr. J. C. Greenough was elected principal in February, 1886, and now fills the position first occupied by Professor Newman fifty years ago, Sept. 4, 1839. Mr. Greenough's assistants are the same as those already enumerated as belonging to the school at the close of Mr. Scott's administration, with no other changes than in the department of chemistry and physics, now taught by Mr. A. C. Longdon; and that of industrial drawing, now taught by Miss Annie Sinclair, in place of Miss Fanny Heywood Smith, resigned.

OFFICIAL VISITORS.

The Westfield school owes much of its success as a training school for teachers to the efficient service rendered by its official visitors.

Rev. Emerson Davis performed this service during the year 1839, and for eight years beginning with 1847. He was always personally interested in the school, and, on account of his great influence with the Board, was able to promote its welfare.

Hon. William G. Bates was chairman of the Board of Visitors from 1839 till 1847. It was largely due to his efforts that the normal school came over from Barre to Westfield.

Dr. Mark Hopkins was on the Board of Visitors from 1849 till 1857. He was one of the most eminent educators of his time, and no one knew better than he the necessity of special preparation for the skilful performance of the duties of the teacher. This knowledge he made both active and intelligent in support of the normal schools.

Ariel Parish was appointed a member of the Board, and visitor of the Westfield school, in 1855, and served the full term of eight years. He had a large amount of practical wisdom, and was himself an eminent teacher.

Rev. Dr. S. T. Seelye was visitor from 1865 to 1871. He manifested his interest in the school by his frequent visits, and by the active part he was accustomed to take in the public examinations of the graduating classes.

Hon. E. B. Gillett was a member of the Board of Visitors from Feb. 1, 1872, till Jan. 6, 1881. Rev. William Rice was appointed May 3, 1871, and, having served one full term and three years of a second, resigned May 16, 1881. The teachers and pupils who were connected with the normal school while Mr. Gillett and Mr. Rice were its governing Board, can never forget the personal kindness received through their administration, or the effective service they rendered to the school by their watchful care over its affairs.

Hon. M. B. Whitney and Dr. Admiral P. Stone have been visitors since June 15 and Nov. 9, 1881. Their good services are exhibiting their results in the prosperity of the Westfield school, and will be still more manifest when the new normal school building shall appear in its magnificence and beauty.

The honorable secretaries of the Board, since its establishment, have all turned their special attention to the encouragement of our system of normal school instruction. Horace Mann considered the professional training of teachers the only means

that could make the public schools worthy objects of public support. The Hon. Barnas Sears and the Hon. George S. Bontwell entertained the same opinion, and did what they could to magnify the importance of normal schools, and to make normal methods of instruction popular in the towns where they were introduced. The Hon. Joseph White, secretary of the Board from 1861 to 1877, always entertained a high regard for the Westfield school. He believed in its methods, and used the influence of his high position to secure their general adoption in the public schools of the Commonwealth.

During the years of its existence, many friends of the school holding no official relations to it have expressed their approval of its work, not merely by good words in its favor, but by important material aid in its support.

Dr. Lowell Mason, the great Pestalozzian music teacher of this country, was a constant friend to the school during the last twenty years of his life. His attention was turned to its methods, and, finding them in complete harmony with his own, he desired to give the school encouragement by his public approval and material aid by his gifts.

The good people of Westfield have ever cherished a good spirit towards their normal school. This spirit was exhibited at first by offering to normal students good homes at a nominal price. Since the students have been provided with a home of their own, the good-will has been shown by offering to them all the advantages of the social life of the place, and free seats in the different places of public worship; and in a still more substantial way, — by employing the graduates in all the public schools of the town.

BOARDING HALL.

In 1872 the Legislature passed a resolve appropriating \$72,000 for a boarding hall ample enough to meet the wants of the school. Everything that boarding pupils require is here furnished, at the low price of \$3.75. The school, having outgrown its accommodations, is soon to be put into a new building, erected on new grounds, and at a cost of \$150,000.

We have thus given an imperfect history of the origin and growth of our normal schools, and of two of these institutions

from the day of their birth through their infancy and youth down to the years of their mature life. We have spoken of their origin in the minds of thoughtful men, of their early instructors and of the results of their labors, as exhibited in the changes and reforms which our public schools have experienced.

The days of doubt and hesitation, and unfriendly criticism of our normal schools, are past. It is now known that the educational progress of the last fifty years is largely due to the influences which these schools have produced by their discussions of the philosophy and art of teaching, and by the good work of their graduates. The graduates of these schools will do well to cherish with an intelligent and active love the institutions that have done so much to increase their personal power as educators of the young, and so much to promote the civilization of the Commonwealth.

BRIDGEWATER STATE NORMAL SCHOOL.

THE HISTORY OF THE SCHOOL.

The State Board of Education decided in April, 1838, to open three normal schools, each to be continued three years, as an experiment. The people of Plymouth County, under the lead of Rev. Charles Brooks, who was deeply in love with the Prussian system of normal schools, were the first to make application to the Board for the location of one of these schools.

The Board, at its second annual meeting, May 30, 1838, voted to establish a normal school in the county of Plymouth, "as soon as suitable buildings, fixtures and furniture, and the means of carrying on the school, exclusive of the compensation of teachers, shall be provided and placed at the disposal of the Board." The Board suggested that an academy building for the accommodation of one hundred pupils, and a mansion house, or houses, for their residence, would be deemed adequate for the public wants.

A large county convention met at Hanover, Sept. 4, 1838, to promote this object. After addresses by Horace Mann, secretary of the Board of Education, Ichabod Morton of Plymouth, Hon. Robert Rantoul, Jr., of Gloucester, Rev. George Putnam of Roxbury, Hon. John Quincy Adams, Hon. Daniel Webster, and Rev. Thomas Robbins of Rochester, Rev. Charles Brooks introduced a resolution approving a plan to raise the sum of \$10,000 in the several towns of the county to provide a building, fixtures and apparatus, suitable for the school.

A Board of Trustees was incorporated by the Legislature of 1839, to raise the proposed fund. Artemas Hale of Bridgewater was president of this corporation, and was very active and influential in securing the means for the establishment of the school. These trustees held meetings in most of the towns of the county. Plymouth, Duxbury, Marshfield, Abington and Wareham voted to make appropriations from the surplus revenue which had just been divided by the general government.

These appropriations amounted to a little more than \$8,000. In six towns individuals agreed to pay the additional \$2,000, provided the school should be located in their own town.

Hon. Samuel Hoar, Hon. Robert Rantoul and Hon. James

G. Carter were appointed, as disinterested men, to locate the school. The decision was made March 26, 1840, in favor of Bridgewater.

At this stage some of the towns refused to pay the sums they had pledged, and the whole plan as to funds, for which so much time and money had been spent, became null and void. The Board were then asked on what terms they would establish the school at Bridgewater. The Board voted "that the school be established at Bridgewater for the term of three years, on condition that the people of the town put the town house in such a state of repair as may be necessary for the school; and that they place at the disposal of the visitors of the school the sum of \$500, to be expended in procuring a library and apparatus; and that they give reasonable assurance that the scholars shall be accommodated with board within a suitable distance, at an expense not exceeding two dollars a week."

The town accepted the conditions, spent \$250 in fitting up the town house, and paid the \$500 for library and apparatus; and the centre school district, at an expense of \$500, built a new school-house for the model school connected with the normal school. The prolonged effort to provide new buildings at the start, made this the last of the first three normal schools of the State to be opened; but it was so firmly planted in Bridgewater that its location has not been changed.

The town hall was a one-story wooden building, forty by fifty feet, its interior including a dressing room for ladies, a small apparatus room, and the school-room, divided by a matched board partition, without paint, and so constructed that the lower half could be raised and lowered, and the room could be used as a whole or in two parts. The furniture was primitive, — a pine-board seat, with a straight back attached to the desk behind. A high platform on three sides of the room brought the teachers prominently into view. In this simple laboratory, by the sheer skill and genius of its principal, the "experiment" of a state normal school in the Old Colony was successfully performed.

NICHOLAS TILLINGHAST, FIRST PRINCIPAL.

The school started on its career Sept. 9, 1840, with twenty-eight students, seven of whom were men, under the tuition of

Nicholas Tillinghast as principal. He was a native of Taunton, Mass., a graduate of the United States Military Academy at West Point, and at the time of his appointment a teacher in Boston. He was "a man of strong religious feeling, pure character, an unflinching devotion to principle, with a real, heroic abnegation of self;" modest, accurate, thorough, of great analytical power, reading character readily and accurately, he had great command over his pupils. He gave the whole energy of his soul with untiring industry to the great work given him to accomplish, and established the school upon a deep and broad foundation.

The Legislature appropriated a sufficient sum for the support of the normal schools for another three years, and the school was continued in the town hall through this period. The Legislature of 1845 appropriated \$2,500, to be spent in providing a suitable building for the school, on condition that the same sum should be raised by the friends of the cause. The town of Bridgewater paid \$2,000, individuals contributed \$700, and Horace Mann advanced \$700, to raise the sum necessary to complete the building. Col. Abram Washburn of Bridgewater gave the site, — one and one-quarter acres of land at the corner of School and Summer streets. On the 19th of August, 1846, the new building was dedicated by appropriate exercises, Hon. William G. Bates and Governor Briggs delivering addresses.

The building was a plain wooden structure, of the Tuscan order, forty-two feet by sixty-four, two stories in height, and contained on the lower floor two ante-rooms, a class room, and the model school room; on the upper floor the principal school-room and two class rooms. It was supplied with new furniture, and was regarded as a superior building.

Mr. Tillinghast continued his work as principal until June 28, 1853, when his health was so much impaired by his unceasing toil that he was obliged to resign. By his persistent, thorough, self-forgetting and noble work, he exerted an influence which will not cease to be felt among the generations of this Commonwealth.

· MARSHALL CONANT, PRINCIPAL.

Marshall Conant, the second principal of the school, entered upon his duties Aug. 3, 1853. He brought to the school

a rich harvest of ripe fruits gathered in other fields of labor, and immediately took up the work where his predecessor left it, and carried it successfully forward, "by his accuracy of scholarship, his skill as an instructor, his industry and fidelity, and the inspiration of his life," until July, 1860, when he was compelled by failing strength to resign his place. He was constantly drawing his pupils to higher fields of thought, and higher attainments.

He was succeeded in August, 1860, by

ALBERT G. BOYDEN, THE PRESENT PRINCIPAL.

The number of students had increased so much under Mr. Conant, that the principal, in his first report to the Board, presented plans for the enlargement of the school building. The Board applied to the Legislature of 1861, and \$4,500 were appropriated for this purpose. The building was enlarged by the addition of a wing, twenty-four by thirty-eight feet, to the middle of each side, increasing its capacity about seventy per cent., and greatly improving the heating and ventilation, and arrangement of the rooms.

In 1866 the price of board had doubled since the opening of the school, and board for all the students could not be found at any price. Application for relief was made to the Legislature of 1867, without success. In 1869 the Board made a strong appeal to the Legislature, which resulted in the appropriation of \$25,000 for the erection of a boarding-hall for the students. Plans were carefully matured by the principal, and a building forty by eighty feet, three stories in height above the basement, pleasant, commodious, neatly furnished, and accommodating fifty-four boarders, was erected, and made ready for occupancy in November, 1869.

In the summer of 1871 the school building was again enlarged, by adding a third story, at a cost of \$15,000. In 1872 a fireproof boiler house was constructed, and a steam-heating and ventilating apparatus was introduced, at a cost of \$6,000.

In less than one year after the opening of the boarding-hall the pressure for rooms and board was as great as before the hall was erected, and the pressure increased. The Legislature of 1873 appropriated \$36,000 for the enlargement of the hall,

and that of 1874 added \$7,600 for the introduction of gas and various other items. The work of enlargement was completed in March, 1874. The capacity of the hall was increased so as to accommodate one hundred and forty-eight boarders, besides the rooms for the family of the principal.

In 1881 a building for chemical and physical laboratories, thirty-two by sixty-four feet, two stories in height above the basement, with an industrial laboratory in the basement, was built, at a cost of \$8,000, connecting with the first and second floors of the main building on the south side.

Each one of these enlargements was made because of the necessity for increased accommodations, and each one resulted in an increase of the number of pupils. The number in attendance the present term is two hundred and thirty-two. The Legislature of 1889 appropriated \$150,000 for the erection of a new brick school building, eighty-five by one hundred and eighty-seven feet, three stories in height, which will furnish first-class accommodations for two hundred and fifty normal students, and for one hundred and twenty pupils in the school of observation and practice.

This school will include the kindergarten, primary, intermediate and grammar grades. The normal students, while they are learning how to teach in the different branches, will observe the teaching of the children in these branches, and in the latter part of their course will serve as assistants in this school.

A "model school" was connected with the school for the first eleven years of its existence, in which each member of the senior class taught at least two weeks. It was discontinued in 1851, because the parents objected to having their children experimented upon so much by inexperienced teachers. Since 1880 the primary grades of the town school in the adjoining lot have been a school of observation for the normal students.

There has been a constantly increasing demand for higher qualifications in the graduates of the school, producing a corresponding increase in the length of the course of study. For the first six years the required course was two terms of fourteen weeks, which need not be consecutive; from 1846 to 1855, it was three consecutive terms of fourteen weeks; from 1855 to 1865, it was three consecutive terms of nineteen weeks; since 1865, it has been four consecutive terms of nineteen weeks.

In 1869 provision was made for a course of four years, the last two years of which are optional. One-third of the school, including two-thirds of the men in the school, are now pursuing the four-years course. The establishment of this course was the most important step forward in the history of the school, in the beneficial influence which the advanced pupils exert upon the tone of feeling in the school, in raising the standard of scholarship, in drawing in better-prepared pupils, in sending out better-trained teachers for the high and normal schools, in giving the school character and standing in the community. The work of this course thus far has been done under serious difficulties. With proper facilities and sufficient teaching force, such as we hope soon to have in our new building, its benefit to the school and the community may be indefinitely extended.

The grounds of the school include the school lot of three acres, on which the buildings stand, the town having added at different times one and three-quarters acres to the original gift of Colonel Washburn; "Boyden Park," containing six acres, just across the street from the school lot, including a beautiful pond, and one of the most attractive places for healthful recreations; "Normal Grove," a half acre of fine chestnut growth adjoining the park, a delightful summer retreat, the gift of Messrs. Lewis G. Lowe and Samuel P. Gates of Bridgewater, alumni of the school; and a sewage farm of four and one-half acres, upon which the sewage from the buildings is distributed for the nourishment of growing plants; making a total of fourteen acres.

DESIGN OF THE SCHOOL.

This institution was established by the Commonwealth for the training of young men and young women for the work of organizing, governing and teaching public schools in the State. It receives as students only those who purpose to be teachers, and who have passed a satisfactory examination. Satisfactory work and deportment are the condition of continuance in the school.

ORGANIZATION OF THE SCHOOL.

A new class is admitted at the beginning of each term, in September and February, and a class is graduated at the close of each term. Two sessions are held daily, five days in the week.

The school is organized for the following courses of study : —

The two-years course, which includes the following studies : —

Arithmetic, book-keeping, elementary geometry and algebra.

Elementary physics, chemistry, mineralogy, botany, zoölogy, geology, physiology, geography, astronomy.

Reading, orthography, etymology, grammar, rhetoric, literature, composition, penmanship, drawing, vocal music.

Gymnastics and military drill.

History and civil polity of Massachusetts and of the United States, and school laws of Massachusetts.

Psychology, science and art of education, school organization, school government, history of education.

The four-years course, which, in addition to the studies named above, includes : —

Algebra and geometry, trigonometry and surveying.

Physics, chemistry, botany, zoölogy.

General history.

English literature, drawing; Latin and French required; Greek and German as the principal and visitors of the school shall decide.

(New classes in the study of the languages are formed only at the beginning of the fall term.)

The intermediate course, which includes the studies of the two-years course, with the election in addition of such advanced studies for one, two or three terms as the regular order of exercises will permit. Graduates from the shorter course may complete the four-years course by two additional years' work.

The special course for graduates of colleges who desire to make special preparation for teaching include: psychology, science and art of education, school organization, school government, history of education, and school laws of Massachusetts, with such elective studies as the regular order of work will allow in the departments of language, mathematics, science, history, or the common-school studies.

These electives allow full laboratory privileges, outlines of subjects, observation, and practice in teaching. This course may extend through one, two or more terms.

The order in which the studies are to be taken is decided by the principal, with the approval of the Board of Visitors.

PRINCIPLES OF TEACHING.

The principles of education are derived from the study of the human mind and body. The method of teaching and training is determined by these principles. The teacher, as an educator,

must know the powers of the mind, the order of their development, the objects upon which they are employed, how they are called into right exertion, and the products of their activity; and he must know the pupil as an individual.

The mind is developed by the right exertion of all its powers. Presenting the proper object of thought to the mind, with the use of the best motives, occasions right activity and knowledge. By the repeated right exertion of the mental powers in the acquisition and use of knowledge, there is a building up within which causes the development of the man. There must be the selection of the proper objects and subjects for study, and the arrangement of what is to be taught in the natural and logical order. Ideas must be acquired from the object of thought, and be correctly expressed, orally and in writing. There must be the constant use of such motives as will secure right moral action.

A course of studies arranged according to the order of mental development and the order of dependence of the different studies is the means for that teaching and training which occasions the activity that causes the development of the mind.

THE METHOD OF TEACHING.

In each study the whole subject is analyzed into its divisions and subdivisions, arranged topically in logical order and presented in outline, thus showing what is to be taught, and the order in which the parts of the subject are to be considered.

In the common-school studies the outline is divided into the *elementary course*, in which the work is laid out in detail for each year of the primary and intermediate grades, and the *secondary course*, extending on through the grammar and high school grades.

The students are led through the analytic and synthetic study of each subject with general reference to teaching. Daily reviews of preceding lessons are made to fix the facts in the mind by repetition, and to connect with the lesson of the day. Each main division of a subject is reviewed, to teach the relation of the parts. The subject, as a whole, is reviewed before leaving it, to teach all the parts in their relations.

The students are taught how to acquire the knowledge of the object or subject by teaching them how to study the lesson at the time it is assigned, and then requiring them to *present* to

the class the results of their study, with criticism by the class and the teacher. After the presenting, the teacher thoroughly questions the class on all the important points of the lesson.

When they have acquired the idea of the method by this imitative teaching, a part of the subject is assigned to the student without being previously taught, and he is required to study the subject, prepare the apparatus and illustrations and teach the class, with criticisms from the class and teacher. The students are also required to drill the class in the application of what has been taught, to examine them on what they have studied, and to do all the kinds of class work.

While studying and teaching the subjects in the elementary course, the students visit the "school of observation," and observe the teaching of these subjects to children by a model teacher. In this way the students learn to teach and train by teaching and training under intelligent and sympathetic supervision.

All the class exercises, from the beginning of the course, are conducted upon the principles and by the method that has been indicated. *The school is a normal training school in all its course.*

After the students have been trained in this way to teach philosophically, in as full a measure as the time will allow, they come in the last term of the course to the educational study of man, and there learn the philosophy of their work by finding in the study of the body and mind the principles which underlie the method which they have learned to use; they also observe their application with pupils in the "school of observation," and have some practice in teaching classes in this school.

Text-books are freely used for reference in the preparation of lessons. The committing of text-books to memory is avoided, the students being trained to depend upon objects of thought rather than upon words.

DISCIPLINE.

The discipline of the school is based upon the principle of self-government by the students. Those who are unwilling to conform cheerfully to the known wishes of the principal and his assistants, are presumed to be unfit to become teachers.

Faithful attention to every duty is encouraged for its own sake. Ranking of students in their studies is not allowed.

EXAMINATION, GRADUATION, EMPLOYMENT.

Examinations are made in each study, and the result in each must be satisfactory, to enable the student to advance to the studies next in order.

The diplomas are given to those students who have satisfactorily passed the examinations in all the studies of the prescribed course. Certificates are given to those who take the special course.

Graduates from either course are in quick demand to fill good positions in the public schools, especially those who have taught before coming to the school, and those graduating from the longer course.

MEANS OF WORK.

The institution has seven laboratories, furnished with the approved modern appliances for teaching how to teach and study the physical and natural sciences.

Physical Laboratories.—In the department of physics there are two laboratories, with a room adjoining for the instructor. One is arranged with accommodations for sixty students to work at the tables, with a room for photography and one for spectroscope work. The other is arranged with a laboratory table for teaching, and with apparatus for projection, for the illustration of various subjects.

Chemical Laboratories.—The department of chemistry has two laboratories, with a room adjoining for the instructor. One, for the elementary course, is arranged with accommodations for sixty students to work at the tables, and with a teacher's chemical table and blackboard, with the seats for the class, thus combining the laboratory and class room. The other, for the advanced analytical work, qualitative and quantitative, is arranged with accommodations for thirty students to work at the tables, and with side tables for special work. These laboratories are provided with hoods for the manipulation of noxious gases, and are thoroughly ventilated.

Mineralogical and Geological Laboratory.—This room is arranged for forty-two students to work at tables at one time. It is provided with three sets of specimens, two of them

arranged in drawers, a working set for each student, an illustrative set for the class to handle and examine, and cabinets of classified typical specimens in comparative mineralogy, in systematic mineralogy, and in geology. The tables are furnished for physical and chemical tests and blow-pipe work. The instructor has a laboratory in an adjoining room.

Biological Laboratory.—This laboratory is arranged for the study of botany, zoölogy and physiology, and includes three rooms. One is arranged for the instructor, two for forty-eight students in each, to work at the tables, each having his place for dissection and microscopic work. These rooms are provided with the working and illustrative sets of specimens, in addition to the working specimens collected by the students, and cabinets of classified typical specimens of plants and animals. The collections in all the departments are arranged and labelled for constant use by the students. Each laboratory is supplied with reference books for special subjects. The students are examined by specially assigned laboratory work, or by the analysis of collections made by them.

Industrial Laboratory.—In this laboratory the students are taught to use tools in making sets of apparatus for use in the different studies of the course, which will enable them to secure inexpensive apparatus for their own schools. It is furnished with nine carpenter's benches and sets of tools, and a turning lathe with a circular saw and jig-saw attachment. Each student has a course of lessons in this laboratory.

The Art Room is fitted up with the best kind of furniture and instruments, with a large number of fine examples of casts, models and flat copies, affording excellent facilities for teaching in the various departments of drawing.

Library.—The school has a valuable library of books for reference, with a card catalogue arranged for direct use in the studies of the course. The general library contains valuable works in English literature, history, biography, science and education. The text-book library contains about two thousand volumes, which are furnished to the students without charge.

STUDENTS.

The number of students who have entered the school is 3,549, — 1,101 men, 2,448 women; of whom 1,949 (593 men

and 1,376 women) have graduated from the regular course, and 60 men and 48 women from the four-years course.

SUCCESS OF THE GRADUATES.

In the early history of the school it was difficult for the graduates to find a chance to teach. They were looked upon with some suspicion. The school has gradually made itself known and felt in the community through its graduates. Some have signally failed, but a large majority have satisfied all reasonable expectations. Many have sustained themselves for a long series of years in some of the most responsible positions in the public schools. Of late years the demand for the graduates has largely exceeded the supply. Nearly ninety-eight per cent. of the graduates of the last thirty-five years have engaged in teaching, four-fifths of them in Massachusetts. Some have been teaching more than forty years, many have taught more than twenty years, and a much larger number more than ten years.

They are engaged in all grades of educational work, — as State superintendents, agents of the State Board of Education, superintendents of public schools, principals and assistants in normal, high, grammar and primary schools, and in some of the most prominent academies and private schools. Eighteen have become principals and sixty-two others assistants in normal schools. In Boston, the superintendent, two of the supervisors, fourteen of the masters and nine of the sub-masters of the grammar schools, and a large number of assistants distributed through all the grades, are graduates of this school. Some have become prominent as lawyers, physicians and clergymen. Many of the women as wives and mothers hold prominent positions, and exert a strong educational influence. Some of the graduates are found in nearly every State in the Union, and in England, France, India, Burmah and Japan. Their influence is felt around the globe.

TEACHERS, — PRINCIPALS AND ASSISTANTS.

Nicholas Tillinghast, principal, 1840 to 1853. Assistants: Thomas Rainsford, Charles Goddard, James Ritchie, Joshua Pearl, Christopher A. Green, Dana P. Colburn, Joshua Kendall, Nancy M. Blackinton, Richard Edwards, Albert G.

Boyden, Ira Moore, Adin A. Ballou, Robert C. Metcalf and Edwin C. Hewett.

Marshall Conant, principal, 1853 to 1860. Assistants: Albert G. Boyden, Edwin C. Hewett, Mrs. Sarah M. Wyman, Jairus Lincoln, Jr., Leander A. Darling, Benjamin F. Clarke, Eliza Woodward, Elizabeth Crafts, Warren T. Copeland and Charles F. Dexter.

Albert G. Boyden, principal, 1860. Assistants: Eliza B. Woodward, Charles F. Dexter, James H. Schneider, Austin Sanford, Solon F. Whitney, Charlotte A. Comstock, George H. Martin, Ellen G. Brown, Emeline E. Fisher, Elisha H. Barlow, Edward W. Stephenson, Alice Richards, Albert E. Winship, Mary H. Leonard, Mary A. Currier, Franz H. Kirmayer, Barrett B. Russell, Clara A. Armes, Isabelle S. Horne, Edith Leonard, Elizabeth H. Hutchinson, Arthur C. Boyden, Clara C. Prince, Cyrus A. Cole, William D. Jackson, Frank F. Murdock, Frank W. Kendall, Joseph Boylston, Abby M. Spalter, Elizabeth H. Perry, Fannie A. Comstock, Sarah E. Brassill, Mrs. Emma F. Bowler and Emma C. Fisher. Teachers of music: O. B. Brown, Hosea E. Holt.

STATE NORMAL SCHOOL, SALEM, MASS.

HISTORY OF THE SCHOOL.

In August, 1852, at a gathering in Salem of the pupils and friends of Charles Northend, to tender to him a parting testimonial of their esteem, the Hon. Charles W. Upham, mayor of Salem, referred to a meeting with the Governor and other members of the Board of Education, as they were returning from the examination of the site offered by Framingham for the erection of a building for the normal school, then located at West Newton, and said: "Why has not Salem made proposals? Her position is favorable, and her railroad facilities accommodate a large part of the population of the State." As the suggestion was favorably received, the city government soon held, at the request of the mayor, a consultation with the directors of the Eastern Railroad Corporation, with the result that the mayor was authorized to offer proposals for the location of the normal school in Salem, similar to those offered by Framingham and the Boston & Worcester Railroad.

The Board of Education, at a meeting in December, 1852, accepted the proposals from Framingham, but voted to recommend to the Legislature the establishment of a normal school in Essex County. According to the recommendation of the Board, resolves were passed by the Legislature, which were approved April 16, 1853, authorizing the Board of Education to establish a State normal school at some suitable place in the county of Essex, and making appropriation therefor.

At its meeting, April 18, 1853, the Board of Education appointed a committee to receive proposals and to examine sites for the normal school to be established in Essex County. Proposals were received from Salem, North Andover, Groveland and Chelsea. The sites were examined, and the committee reported the results of the examination at a meeting held June 2, 1853. "The Board, after a careful and impartial examination of the claims of the several localities, decided on Salem as the most accessible, nearly central as to population, and offering facilities for the improvement of the pupils by its schools and its literary and scientific advantages, surpassed by those of few towns in the Commonwealth."

The city of Salem furnished the site, formerly occupied for the Registry of Deeds, at the corner of Summer and Broad streets; erected thereon a brick building two stories high and sixty-seven feet square, furnished the same to the satisfaction of the Board, and received therefor the sum of six thousand dollars appropriated by the Legislature, and two thousand dollars contributed by the Eastern Railroad Corporation. Workmen began to remove the old building on the 3d of September, 1853. The new building was dedicated with appropriate exercises, Sept. 14, 1854, Governor Washburn presiding, and ex-Governor Boutwell delivering an address.

The following is the statement of the first cost and resources of the school:—

<i>Cost.</i>		<i>Resources.</i>	
Building, . . .	\$10,500 00	State appropriation, .	\$6,000 00
Furniture, etc., . .	2,789 30	Eastern Railroad contribution, . .	2,000 00
Land, valued at . .	5,000 00	City of Salem contribution, . . .	10,289 30
	<hr/>		<hr/>
	\$18,289 30		\$18,289 30

The building contained, on the lower floor, a lecture room, and six smaller rooms for library, apparatus, reception room, etc.; on the second floor, a school-room sixty-five by forty feet, four recitation rooms and two smaller rooms, one for the use of the teachers and the other for the deposit of reference books.

GROWTH OF THE SCHOOL.

The school commenced its career with sixty-five pupils, under the charge of Mr. Richard Edwards, a graduate of the Bridgewater Normal School, as principal, who was assisted by Miss Martha Kingman, and, in the following month, by Miss Elizabeth Weston. The enthusiasm and devotion which Mr. Edwards brought to his work, insured, from the beginning, the success of the school, and soon gave to it an enviable reputation. At the end of three years of admirable service as principal, Mr. Edwards resigned his position, to become principal of the normal school in St. Louis, Mo. He subsequently served for some years as president of the Illinois

Normal University. He is now the State superintendent of schools in Illinois.

The position vacated by the resignation of Mr. Edwards was offered by the Board of Education to Mr. Daniel B. Hagar, principal of the Eliot high school, Jamaica Plain, but was declined. The Board was then so fortunate as to secure the services of Prof. Alpheus Crosby, widely known as a ripe scholar and a thorough instructor. He began his labors in the school Oct. 29, 1857. During a period of nearly eight years he devoted himself to the interests of the school with the utmost zeal and fidelity. During his administration, in the year 1860, the school-house was much improved by the raising of the roof and the construction of a partial third story, which furnished rooms for library, cabinet, apparatus, etc., thus leaving several rooms in the first story to be used for recitations. In September, 1865, he resigned his position, in order to assume other important duties. His pupils deeply regretted his departure, feeling that by his constant care and wise counsels they had been stimulated to seek for a high standard of moral, intellectual and spiritual attainments.

The principalship of the school was again offered to Mr. Daniel B. Hagar, and was accepted. The number of pupils in the school having largely increased, the principal, in his report to the Board of Education, in 1869, made such a representation of the wants of the school, that the Board applied to the Legislature for an appropriation of \$25,000, to provide for the enlargement of the school-house. The application was promptly granted, and the work of enlargement was begun in August, 1870, the school occupying meanwhile the lower story of the city high-school building, the free use of which had been granted by the city authorities. The school returned to its own house in June, 1871, the enlargement having been completed, with the exception of three small rooms which were finished during the following year.

The building, as enlarged, measures ninety-five by sixty-seven feet, and consists of three stories covered with a mansard roof, and having a tower at the Broad Street end. The first story contains a reception room, five recitation rooms, and three dressing rooms; the second story consists of the assembly room (which has seats for two hundred and ten pupils), the principal's

room, the assistant teachers' room, the reference-book room, and two recitation rooms; the third story includes the library room, the cabinet and drawing room, the chemical room, the philosophical room, the teachers' private laboratory, the text-book room and two recitation rooms. The tower contains one room, which is designed for astronomical uses. It is supplied with a valuable telescope, made for the school by Alvan Clark of Cambridge, and paid for by the voluntary contributions of several graduating classes.

OBJECT OF THE SCHOOL.

This institution was established by the Commonwealth for the preparation of female teachers to instruct in the common and high schools required by law.

OFFICERS OF THE SCHOOL.

The school is at present, December, 1889, under the charge of the following officers and instructors:—

Board of Visitors.

Rev. ELMER H. CAPEN, D.D., College Hill.

Gen. FRANCIS A. WALKER, LL.D., Boston.

Hon. JOHN W. DICKINSON, Newtonville.

Instructors.

DANIEL B. HAGAR, A.M., Ph.D., psychology applied to principles and methods of teaching, school management, history of education, school laws of Massachusetts, civil government, advanced Latin, vocal music, and general exercises.

ELLEN M. DODGE, mental philosophy, English literature, German.

CAROLINE J. COLE, English literature, general history, astronomy, geography, English composition.

MARY N. PLUMER, elementary arithmetic, botany, penmanship.

SOPHIA O. DRIVER, Latin, English grammar, advanced geometry, geology, library.

HARRIET L. MARTIN, algebra, geometry, advanced arithmetic, book-keeping.

E. ADELAIDE TOWLE, physiology, object lessons, composition.

MARY E. GODDEN, English grammar, United States history, composition.

HARRIET D. ALLEN, reading, elocution, composition, school records.

ELIZABETH N. JONES, arithmetic, geography, composition.

JESSIE P. LEAROYD, Latin, French, geography.

ANNA K. BLAISDELL, Drawing.

CHARLES E. ADAMS, chemistry, physics, zoölogy.

ADMISSION AND COURSE OF STUDY.

The requirements for admission to the school, and the general course of study, are those prescribed by the Board of Education for all the normal schools of the State.

TWO-YEARS COURSE IN DETAIL.

The following are the studies which are carried through the course, with the number of exercises per week : —

Reading (2) ; English composition, including rhetoric (2) ; vocal music (2) ; spelling, defining and etymology (4) ; drawing (2) ; number (4).

Class D (lowest).

English grammar, anatomy and physiology, geography, and arithmetic, each four exercises per week.

Class C.

English grammar, geography, arithmetic, geometry, each four exercises, and botany two exercises.

Class B.

Physics, chemistry, English literature, United States history, arithmetic (half term), algebra (half term), each four exercises.

Class A.

Astronomy (half term), geology (half term), object lessons given to classes of children, psychology applied to principles and methods of teaching and school management, mental philosophy, school laws, civil government, book-keeping, zoölogy.

ADVANCED COURSE.

The advanced course, occupying two years, includes advanced geometry, advanced algebra, trigonometry, advanced chemistry and physics, general history, Latin, French, German and drawing. The arrangement of the classes depends, in part, upon the previous attainments of the pupils.

AIMS AND METHODS OF STUDY AND TRAINING.

The ends chiefly held in view are: The acquisition of the necessary knowledge of the principles and methods of education, and of the various branches of study; the attainment of skill in the art of teaching; and the general development of the mental powers.

Throughout the course, all studies are conducted with especial reference to the best ways of teaching them. Recitations, however excellent, are deemed unsatisfactory unless every pupil is able to teach others that which she has herself learned. In the various studies the pupils in turn occupy temporarily the place of teacher of their classmates, and are subjected to their criticisms as well as to those of their regular teacher. During the senior term object lessons on a variety of subjects are given to classes of primary-school children, so that every pupil obtains, before graduating, considerable experience in teaching children to observe, think, and give expression to thought.

The studies are conducted upon the topical plan. Text-books are chiefly used as books of reference. The great object of instruction in the school is to train pupils to observe accurately, to reason logically, and to express their inferences clearly and concisely; to make them independent, self-reliant, and ready to overcome whatever difficulties may arise.

In the pursuit of all studies which call for objective illustration, especially of chemistry and physics, pupils are taught to construct simple and inexpensive apparatus.

DISCIPLINE.

The discipline of the school is made as simple as possible. Pupils are expected to govern themselves; to do without compulsion what is required, and to refrain voluntarily from all improprieties of conduct. Those who are unwilling to conform cheerfully to the known wishes of the principal and his assistants, are presumed to be unfit to become teachers.

It is not deemed necessary to awaken a spirit of emulation, in order to induce the pupils to perform their duties faithfully. There is no ranking of scholars according to their comparative success in their studies. Faithful attention to duty is en-

couraged for its own sake, not for the purpose of obtaining certain marks of credit.

LIBRARIES.

The general library of the school (a large part of which was presented by Professor Crosby) contains more than five thousand volumes. It is well supplied with works on English literature, history, biography and travels, and on mental and physical science. Valuable additions to the library have been made by the graduating classes.

THE CABINET.

The cabinet contains several thousand specimens, illustrating the various departments of natural science, especially geology, mineralogy and natural history. For the most of these specimens the school is indebted to the efforts of Professor Crosby.

LABORATORIES.

The school is furnished with well-equipped laboratories, in which the physical sciences are studied objectively. In chemistry, physics and biology, every pupil is trained to experiment, to observe and to draw proper inferences. The laboratories are so constructed that this can be done conveniently, and without danger to the pupils.

PUPILS.

The number of pupils that have entered the school since its organization in September, 1854, is 3,561, of whom 1,670 have graduated from the two-years course, and 95 from the advanced course.

WORK DONE BY THE PUPILS.

Nearly all the graduates of the school, and a large part of the non-graduates, have engaged in teaching, and satisfactory evidence of their general success has been abundantly furnished. From returns received from past members of the school, in 1887, it appears that, of those reporting, the members of the classes from the first through the fifth had then taught an average of nine and one-half years; of the classes from the sixth through the twentieth, of eight years; of the classes from the twenty-first through the thirtieth, of six years. Many of those

belonging to the earlier classes have taught in Massachusetts more than twenty years.

According to the latest reports received, 88 per cent. of the graduates have taught in Massachusetts. Fifty have taught in normal schools,—two as principals; one hundred forty-four in high schools,—eleven as principals; forty-six in academies and seminaries; nine in colleges,—two as professors; seven in universities; ten in deaf-mute schools,—eight in the Clarke Institution at Northampton; five in kindergarten schools; four in training schools; two in State industrial schools; one in school for the blind. Seventeen have served on school committees, one as county superintendent, one as county examiner. Six have become physicians; eight, authoresses; one, an examiner in the United States Patent Office; one, a minister; and one, an editor. Several have gone as missionaries to Japan, Turkey, India, Africa and the Sandwich Islands. Twenty-six States and Territories are known to have received more or less aid from the school.

THE TEACHERS OF THE SCHOOL.

Principals.

Richard Edwards, LL.D., from September, 1854, to September, 1857; Prof. Alpheus Crosby, from October, 1857, to September, 1865; Daniel B. Hagar, Ph.D., from September, 1865.

Assistants.

With Mr. Edwards during his principalship from September, 1854, to September, 1857: Martha Kingman, Elizabeth Weston, Lucy A. Tefft, Sarah R. Smith, Phebe A. Breed; teacher of music, E. Ripley Blanchard.

With Professor Crosby from October, 1857, to September, 1865: Phebe A. Breed, Olive P. Bray, Ellen M. Dodge, Mary E. Webb, Gertrude Sheldon, Anna M. Brown, Caroline J. Cole, Elizabeth Carleton, Eunice T. Plumer, Josephine A. Ellery, Mary B. Smith, Mary C. Spofford, Mary E. Godden, Mary N. Plumer; teachers of music, E. Ripley Blanchard, Sarah M. Eaton, Elizabeth G. Hunt, Lucy Kingman, Clara M. Loring, O. B. Brown.

With Mr. Hagar from September, 1865: Ellen M. Dodge, Caroline J. Cole, Mary E. Webb, Mary B. Smith, Mary E. Godden, Mary N. Plumer, Ellen A. Chandler, Mary E. Nash, Isabel C. Tenney, Sophia O. Driver, M. Isabella Hanson, Harriet L. Martin, Eliza H. Merrill, E. Maria Upham, E. Adelaide Towle, Harriet D. Allen, Elizabeth N. Jones, Mabel F. Hines, Isaac J. Osbun, Chase Palmer, Ph.D., Jessie P. Learoyd, Charles E. Adams; teachers of elocution, Mary A. Currier, S. Augusta Mayo; teachers of drawing, Christine Chaplin, Mary A. Clarke, Walter S. Goodnough, Leslie Miller, Emeline F. Bowler, Lizzie A. Herrick, Anna K. Blaisdell.

WORCESTER STATE NORMAL SCHOOL.

The normal school at Worcester, so recently established (1874), has necessarily but a short history. Its opening marked no new era in the educational progress of the State, but was simply a natural outgrowth and expression of that progress. The experience of the general community had clearly shown that the public schools derive substantial benefit from the special training of teachers; and when it was seen that existing normal schools drew their pupils mainly from their own immediate neighborhood, and but sparingly from a distance, the conclusion was easy that each important centre of population, in order to be well served by the means of training its teachers, must have its own normal school. It was this consideration, more than any other, that led to the founding of such a school at Worcester. At first there was a fear in some quarters that the added burden of maintaining another institution might operate to withdraw needed support from the four schools already established, and in successful progress. But the experiment has proved that such fear was groundless. The new school has served to extend and deepen public interest in the work of normal schools generally, and has helped to demonstrate more fully the value and practicability of such work; and, as a consequence, the popular support of these schools, as expressed in annual legislative appropriations, has grown to be more spontaneous and liberal year by year. A striking proof of the esteem in which this school was held, while yet almost in its infancy, is found in the fact that when, some years ago, a great cry for economy went through the State, and the suggestion was tentatively made to close the Worcester school, as a measure of retrenchment, there came to the State House a remonstrance so emphatic that it did not need to be put in writing, and the proposal was never heard of again.

ORIGIN OF THE SCHOOL.

The following extract from the thirty-seventh annual report (1872-73) of the Board of Education, gives in outline a history of the establishment of this school:—

By the terms of a Resolve which went into effect on the twenty-fifth day of June, 1871, the Board of Education were authorized and required to establish a State normal school in the city of Worcester; and the trustees of the Worcester Lunatic Hospital were authorized and required to convey to the Board of Education and its successors a tract of land of not more than five acres, to be located by the Governor and Council, within certain limits fixed in the Resolve. An appropriation of sixty thousand dollars was made, upon condition that the city of Worcester should pay the Board of Education, for the purposes named in the Resolve, the sum of fifteen thousand dollars. This condition was promptly complied with. The tract was located by the Governor and Council Sept. 2, 1871; and on the nineteenth day of September, 1871, the conveyance was made by the trustees of the hospital to the Board of Education and its successors, in trust, as directed.

The tract of land located is upon Hospital Hill, in Hospital Grove (formerly so called), within a short distance of the new union depot, now in process of erection, — a point at which, when the railroad arrangements now in progress shall be completed, pupils residing on the line of either of the roads leading into the city of Worcester can arrive in season for the commencement of school each day, and take the cars to return after the school exercises are finished.

Dedicatory exercises were held in the school-house on Friday, Sept. 11, 1874, the principal address being given by the venerable ex-Governor Emory Washburn. A large audience was present, including many men and women prominent in the educational history of the State. On the following Tuesday (September 15) the school was formally opened to pupils, and the first class, sixty-nine in number, was admitted.

VISITORS OF THE SCHOOLS.

The following gentlemen have acted in behalf of the State Board of Education as visitors of this school: Hon. Henry Chapin, Rev. Alonzo A. Miner, Rev. Phillips Brooks, Rev. William Rice, Hon. Joseph White, *ex officio*, Hon. Elijah B. Stoddard, Hon. John W. Dickinson, *ex officio*, Admiral P. Stone, LL.D.

Judge Chapin, chairman of the first Board of Visitors, and ever a firm and judicious friend of the school, died at his home in Worcester, on Sunday, Oct. 13, 1878, aged sixty-seven years. At the next assembling of the school the following

expression of the sentiments of teachers and pupils was unanimously adopted :—

We, the teachers and students of the State Normal School at Worcester, desire to express our sense of the great loss sustained by the school in the death of Hon. Henry Chapin.

As chairman of the Board of Visitors of the State Board of Education, his relation to the school, from the beginning, has been so intimate and constant as to seem almost paternal.

Remembering his sympathy with the object for which the school is maintained, his sagacity and patience in dealing with the details of its organization and progress, and the genial and buoyant influence of his presence and his words,—realizing the value to the school of this rare and manifold service, we deeply feel the loss of a wise and steadfast friend.

At the graduating exercises, held July 1, 1880, a portrait bust in marble of Judge Chapin was presented to the school by his widow, the late Louisa T. Chapin. It now stands in the main hall of the building, upon a suitable marble pedestal. The work was executed by Mr. Andrew O'Connor, and is generally regarded as an excellent likeness.

BUILDING AND GROUNDS.

The first (and hitherto the only) building was erected in 1872–73, from designs by Alex. R. Estey, Esq., of Boston. It is a massive yet graceful structure of stone, roomy, well lighted, convenient in all its details, and not without a considerable degree of architectural dignity and elegance. It was pronounced by the secretary (Joseph White), in his official report for 1873, to be “a noble edifice, worthy of the Commonwealth and of the object for which it stands.” A cut of the building appears as a frontispiece to the thirty-sixth annual report of the Board of Education.

The grounds are comprised in a single lot, of ample area (five acres), elevated and prominent in situation, diversified by many picturesque irregularities of surface, and beautified by several natural groves of oak trees. In recent years, through the energy of the present chairman of the Board of Visitors (Hon. E. B. Stoddard), the whole tract has been enclosed by a solid and handsome wall of stone, with suitable gateways

for entrance. Scores of young trees and many shrubs and vines have also been planted by the teachers and pupils, so that the lot is gradually coming to wear a very tasteful and attractive appearance. The distant outlook from the windows of the building, especially toward the west, is one of unusual extent and beauty.

FACULTY.

The aim has been carried out from the first, to employ as instructors only persons of mature age, wide attainments and successful experience. These have been selected for nothing but their professional qualifications, taking the phrase in its widest sense. Changes in the faculty have been rare, and the character of the school, as affected by the teaching staff, has remained stable and uniform throughout its history. A spirit of harmony and mutual respect has always prevailed to a remarkable degree among the teachers; and the impression which this has made upon the surrounding community, and especially upon the successive classes of students, has been one of unity of purpose, founded upon strict loyalty to the fundamental principles of education and of personal character.

The following tabular list will furnish additional information with reference to certain details:—

E. HARLOW RUSSELL, principal, previously for ten years principal of Le Roy (N. Y.) Academy. Appointed June, 1874; still in service. Subjects: history and principles of education, theory and art of teaching, physiology and hygiene, reading, etc.

MISS REBECCA JONES, graduate of Oswego Normal and Training School, principal of Worcester Training School. Appointed September, 1884; still in service. Subjects: elementary methods, practice of teaching.

CHARLES F. ADAMS, graduate of Bridgewater Normal School, teacher of natural sciences in Fitchburg high school. Appointed September, 1874; still in service. Subjects: natural sciences, mathematics, etc.

MISS FLORENCE FOSTER, graduate of Framingham Normal School, teacher in New Haven high school. Appointed September, 1874; resigned July, 1878. Subjects: English language and literature, ancient and modern history, etc.

MISS CARRIE W. STEVENS, teacher in the Worcester Conservatory of Music. Appointed October, 1874; resigned May, 1875. Subject: vocal music.

Miss JULIET PORTER, graduate of Framingham Normal School, teacher in Adelphi Academy, Brooklyn, N. Y. Appointed February, 1875; still in service. Subjects: mathematics, geography, botany, physiology, etc.

MICHAEL J. GREEN, graduate of Massachusetts Normal Art School. Appointed February, 1875; resigned July, 1876. Subject: drawing.

HENRY W. BROWN, graduate of Harvard University, teacher in Worcester high school. Appointed September, 1875; still in service. Subjects: English language and literature, composition, German, psychology, logic, etc.

Miss HELEN F. MARSH, graduate (certificate of Class A) of the Massachusetts Normal Art School, teacher in State Normal School, West Chester, Penn. Appointed September, 1876; still in service. Subjects: drawing, vocal music.

EDWARD S. NASON, special teacher of singing in the public schools of Worcester. Appointed February, 1880; resigned July, 1880. Subject: vocal music.

Mrs. MARION J. SUMNER, teacher in Worcester County Music School. Appointed June, 1878; still in service. Subject: choral singing.

Miss ELLEN M. HASKELL, principal of Wheaton Seminary, Norton, Mass. Appointed September, 1881; still in service. Subjects: English language and literature, composition, geography, history, etc.

JAMES S. WHITMAN, graduate of Oxford University, principal of a private school in Worcester. Appointed February, 1885; resigned July, 1886. Subjects: English composition, history, etc.

Miss ARABELLA H. TUCKER, graduate of Worcester Normal School, teacher in Worcester public schools. Appointed September, 1888; still in service. Subjects: botany, English language, reading, etc.

STUDENTS.

The whole number of students admitted up to the present time (January, 1890) is eight hundred and fifty-five. Of these, a little less than half were graduates of high schools at the time of admission, while a large majority had received the equivalent of one or two years of high-school instruction. For a number of years past the majority of our entering pupils have had a full high-school course. They have all come with the intention (expressly declared in writing) of completing the prescribed course here, and of engaging in teaching afterwards. The strict enforcement of this salutary condition has had the effect to keep our ranks clear of a large class of appli-

cants who would like to enjoy the advantages of the school without assuming the corresponding responsibility to make such use of these as the State requires in return. No resort to the school has ever been allowed for the purpose of general education without reference to the work of teaching. In practice, as well as in purpose, this has been, and is, exclusively a normal school.

Great pains have been taken to secure a body of students with good health. To this end, a physician's certificate of general physical soundness is a condition of admission, and thereafter, in cases of doubt, a renewal of such certificate is required. The eyes are carefully examined, and abnormal cases are promptly placed in the hands of a competent oculist. Excessive or distracting occupations outside of school are firmly discountenanced. The aim is to impress students with the conviction that teaching is a serious and arduous business, demanding not only zeal, but also health and the good spirits that flow therefrom. There is good reason for believing that this policy has not been without substantial effect in promoting the well-being of the school; although it is by no means claimed as due to this cause alone, that we have enjoyed for fifteen years entire exemption from epidemics, that we have had a high percentage of regular attendance, that a majority of our students speedily gain in appetite and weight after entering the school, and exhibit a youthful buoyancy of manner that is often remarked by visitors.

It is perhaps worthy of being recorded that we have to deal with two pretty well-marked classes of pupils, — those coming from rural surroundings, and those born and reared in the city. The former show as a rule more reserve power, more enthusiasm, and greater capacity for growth; the latter are brighter and quicker, and have their faculties better in hand. It can hardly be said which make the better teachers. Many of the city-bred girls have been over-taught, and they show the effect of it in a certain fatigued and incurious attitude of mind, while at the same time they possess a surprising facility of expression, both in speech and writing. Country girls, on the other hand, are often deficient in elementary knowledge and in habits of ready attention and application; but they make up for this in great measure by freshness of mind, and large experience of

domestic affairs and of out-door nature. It is undoubtedly a good thing for both these classes of young people to be brought together. While neither wins all the honors, they help each other's defects, and by daily intercourse come into closer relations of mutual respect.

The ranks of teachers are recruited almost wholly from the industrial classes. The pupils of normal schools are therefore familiar from childhood with the worthy notions of self-help and of serviceableness to others. A life of idleness and luxury is foreign to their thoughts and aspirations. The highest standards of morals and manners are studiously and persistently encouraged.

GRADUATES.

Our graduates number, up to this time, exactly four hundred. Of these, only thirteen have been young men; but, in addition, eight young men, all graduates of college, have taken a special elective course, and have received certificates of proficiency. These latter are not counted as regular graduates, but are called "certificated students." There have been twenty-five classes, giving an average of sixteen for each semi-annual class, or thirty-two for each year. About one hundred have married, and fourteen have died.

In order to obtain our diploma, the student is expected to fulfil three conditions: First, to pass through the prescribed course of two years; second, to sustain a satisfactory public examination of teachers conducted by a competent school committee; and, third, to show in actual practice the ability to teach and manage an ordinary school successfully. Every one of our four hundred graduates has fully met the above requirements before receiving the honors of graduation.

So thorough a test could not have been applied without the intelligent and generous co-operation of the school authorities of the city of Worcester. From the first the normal school has been regarded with great favor by the local school board, as well as by the citizens generally; and its aims and plans have been thus furthered in every way, so that whatever success it has achieved has been due in no small degree to the sympathy and aid it has uniformly received from the community in which it is so fortunately located. And, in return, the school

has endeavored to serve the city and neighboring towns, as well as the State at large, by doing its best to raise the standard of qualifications expected and required in public school teachers.

Our graduates, with scarcely an exception, have entered at once upon their chosen vocation. It is certain that more than ninety-five per cent. have done so, and that they have taught to the satisfaction of those who employed them. They have served and are serving with equal acceptance in ungraded district schools, in the graded schools of the cities and larger villages, in high schools, academies and seminaries, and in normal and training schools; and the supply has never in any year proved equal to the demand. Happily, these facts no longer need be dwelt upon. They have been certified and made public again and again, until at length they seem to have become a part of every intelligent view of the educational situation in this Commonwealth.

Our graduates are closely followed in their teaching experience after they leave school. Diligent inquiry is made as to their success, and all facts and opinions obtained are carefully preserved. The following questions, in the form of a printed circular, are sent to committees and superintendents:—

1. Was the school taught by _____ exceptionally difficult to instruct or manage?
2. What traits of excellence (if any) did you observe in _____ instruction or management?
3. What deficiencies?
4. What order of ability did _____ show, on the whole, as compared with average teachers of like experience?

Besides this, the graduates themselves, after some years of teaching, are questioned with reference to the effects which they ascribe to their normal-school training, and to each prominent feature of it. The following is the substance of a circular which is sent only to graduates of several years' experience in teaching:—

It is thought that the experience of our earlier graduates must enable them to form valuable opinions as to the comparative usefulness in practical teaching of the various points in study and training

to which they gave special attention here. Such opinions, frankly expressed, would furnish important hints for the future management of the school. The following questions are therefore sent to those who have taught two years or more since graduation. Full and frank answers are earnestly desired, and will be of real service to the school : —

1. Have you had much occasion to use the knowledge of hygiene that you acquired here, and, if so, in what ways chiefly ?
2. (a) Do you use and value what you learned here in " principles ? "
(b) In " methods ? "
3. State pretty fully how you regard your " apprenticeship."
4. (a) How much occasion have you had for your acquirements in music ?
(b) In drawing ?
5. (a) In what respects do you feel best satisfied with the course here ?
(b) In what respects least satisfied ?
6. (a) What one or two acquirements or habits gained chiefly here do you find most useful in school teaching ?
(b) What one or two least useful ?
7. What exercise or study, *considering the time it required*, do you regard as the most valuable to you ?
8. What influence, if any, do you attribute to the school in the formation or development of your character ?

This testimony is found to possess considerable value, and is given due weight in all plans looking to the improvement of the school from year to year.

The endeavor is, as will be seen, to bring all theories to some final test of experience. Ideals there must be, of course, or there is no improvement ; but the practical outcome must not contradict plain common-sense, or fail to be serviceable to the every-day needs of the mass of our people.

The new and perplexing problems recently brought into school teaching and school management by the great influx of illiterate foreigners specially requires that the teachers of to-day shall have general intelligence and good judgment, as well as a large share of patience, ingenuity and tact, in order to deal justly and skilfully with difficulties hitherto but little known in the schools of New England.

Our graduates formed, some years ago, an association having for its chief aims the cultivation of a social spirit, the enjoyment of festive reunions, and the organized expression of their loyalty to the school. The association held its first reunion July 1, 1881, and has grown larger and more compact with

each succeeding year. A suite of rooms has been set apart in the building for their use, not only upon anniversary occasions, but whenever they come back to visit the school; and these rooms they have already made convenient and attractive by suitable furniture of their own purchasing.

Early in the year 1888 this association did the principal the honor to request him to sit for his portrait. The artist chosen was Mr. E. T. Billings of Boston, well known for his excellent portraits of many leading citizens of Worcester, who bestowed much time and pains upon the work. It is life size, three-quarters length, and is generally pronounced a striking likeness and a genuine work of art. It has been appropriately framed, and now stands on an easel in the graduates' rooms, awaiting the time when the association, whose property the portrait is, may with propriety place it in the main hall, to stand permanently thenceforth as part of the history of the school.

SOME AIMS AND SPECIAL FEATURES.

Teaching an Art rather than a Science.—In this school there has been no attempt to emphasize the view that the teaching and management of our public schools has reached the dignity of a science. The teacher's work has been regarded rather as an art, founded upon certain natural laws and conditions, chiefly those of physiology, psychology and ethics, with a definite practical aim; namely, the acquisition of knowledge and the increase of faculty, to be reached, or at least approached, by a great variety of means, many of which, through our limited knowledge of human nature and our imperfect command of motives, are uncertain in their operation, and can never be arranged with clear foresight. Hence the importance of a liberal view of the scope of education, and of the expedients that may be employed in its furtherance; and hence, likewise, the value in practice of a general readiness on the part of the teacher to face with courage and persistence each problem as it arises, to seek with open mind for the true causes of failure and success, and thus to profit by experience, and so to help, if ever so little, to build up for future generations a noble and manifold art or profession of teaching. The effort is made to engraft the instruction of the normal school upon the stock of the pupil's natural abilities; to bring these

abilities, as it were, to the light and air, not bend and clip them into the technical semblance of something not warranted by the learner's inborn capacity and cast of mind.

Use of the Mother-Tongue. — A prominent object in our course of training is to give pupils a command of good English, especially in speaking. To this end, nearly all school exercises are so arranged and conducted as to serve this purpose. What is called "the platform exercise" has proved specially efficacious in this direction, and graduates have often testified to its value. Every day throughout the year the whole school assembles in the main hall, and, for a half-hour or so, students volunteer to occupy four or five minutes each in presenting some matter of general interest previously prepared. The subjects cover the widest range, and may or may not have direct bearing upon school work. They include facts of science or history, news of the day, brief biographies, stories, personal experiences, descriptions, selections of literature, exhibitions of natural and other objects, brief musical performances, and so on, in endless variety. What is said must be extempore, and the speaker must be ready to answer off-hand the natural questions of teachers and pupils, by which he is frequently interrupted. No exercise of the school is so interesting and popular as this, and none is believed to be more helpful in improving the power of easy and appropriate speaking, which all teachers so much need. It should be added that criticism plays a very subordinate part in the platform exercise, the chief aim being to encourage the presentation of interesting matter in a natural and unaffected manner.

Knowledge and Use of Books. — A considerable acquaintance with good books, both of the literary and encyclopedic orders, would seem, in these days, indispensable to a teacher. But, in a realm so vast as that of the modern library, the task of imparting to the generality of our students, in the short time that can be devoted to such a purpose, even a tolerable degree of skill in the use of books, is one which taxes the utmost resources of a normal school. As a matter of fact, the majority of our pupils come to us with a very crude taste for literature, and, what is far more surprising, with the smallest ability and inclination to use even an ordinary dictionary, to say nothing of less familiar books of reference. In this important matter

we have to begin almost at the very beginning ; and months of persistent effort are required to lay so much as a foundation for the habit, so essential to even the feeblest scholarship, of seeking needed information by the shortest and surest paths, not to speak of the far rarer ability to recognize the genuine literary quality in books, and the disposition to turn often to such books for enlightenment and inspiration.

The library of the school contains about twenty-five hundred volumes, not including text-books, and has been most carefully selected with reference to our daily needs. The books are distributed through the working-rooms of the building, so as to be almost at the elbow of every student. No restriction whatever is placed upon their constant use, and pupils are sent to them almost hourly, upon every occasion where they can be of the slightest avail. They are freely lent to students to take home over every vacation and holiday, — a privilege that comes to be highly prized by many. By the use of these and similar means, followed up throughout the whole course, a perceptible effect is indeed produced ; and not a few of our graduates testify in after years that they owe to our library a new power and a new delight in their profession.

The Study of Children. — As supplementary to the systematic study of psychology, the pupils of this school have been engaged for several years in the study of children, objectively, upon a plan which may be outlined as follows : —

* The principal requests the students to observe the conduct of children in all circumstances, — at home, at school, in the street, at work, at play, in conversation with one another and with adults, — and record what they see and hear as soon as circumstances will permit. When the nature of the work is explained to the school, great emphasis is placed upon the necessity of having the records genuine beyond all possibility of question ; of having them consist of a simple, concise statement of what the child does or says, without comment by the writer ; of making both the observation and the record without the knowledge of the child ; and of noting the usual, rather than the unusual, conduct of the individuals observed.

For convenience in classification, blanks of five colors are provided for the records : white paper is used for such observations as students make themselves, red for well-attested ones

reported by others, yellow for reminiscences of their own childhood, green for mention of whatever they read on the subject, and chocolate for observations that extend continuously over a specified period of time. Each blank has the following heading:—

STATE NORMAL SCHOOL AT WORCESTER.

Study of Children.

1. Date, _____.
2. Observer's name, _____; age, _____:
- P. O. address, _____.
3. Name (or initials) of person (child) observed, _____; sex, _____; nationality, _____; age (years and months), _____.
4. Length of time between making the observation and recording it, _____.

Record.

If the record is from hearsay, the names of both recorder and observer must be given.

Pupils write the records at their convenience (immediately after making the observation is the best time), and put the papers in a designated place. A teacher reads them from time to time, and classifies them under the heads,—knowledge, reflection, imagination, conscience, feeling, play, etc.

Both teachers and pupils feel that no other part of the pedagogical training has so direct an influence in developing the qualities most sought in a teacher. It is clearly manifest that it awakens curiosity concerning the phenomena of child nature, excites intelligent sympathy with children, and contributes to skill in discipline and instruction. Graduates and apprentices give abundant testimony on all these points.

The work of making is not compulsory, but nearly all members of the school engage in it from genuine interest. A few selected papers are placed from time to time where they may be read by all who care for them. How far these serve as stimulus and example is not known; but every day, not excepting the first day of a term, brings its supply of records, even

though the subject may not have been explicitly mentioned for months. It is indeed the most nearly self-sustaining exercise in the school.

Many valuable records are reports of what is seen in the street on the way to or from school, but perhaps the highest value attaches to the reminiscences of the observer's own childhood. To recall one's own feelings, motives and conduct, in circumstances that are repeated in the life of every child, proves, as might be expected, in a high degree salutary, and affects sensibly the manner of judging others. The frankness and humor with which this kind of report is made are often very interesting.

Systematic instruction in psychology is aided, both in the way of preparation and supplement, by this additional study. Pupils are thus furnished at the outset with facts of their own observation, which serve as elementary materials for scientific classification and study; they have a habit of observing a certain class of phenomena, and have received suggestions and cautions that are of service to them in other departments; they are able to pass more easily to mental science, because they have learned that that, as well as natural science, can be pursued by an objective method; they have an already awakened and active interest in the subject, that gives them pleasure in learning general principles, sometimes in part known by their own observations; and, moreover, they attach a different value to a text-book which they see is a natural outgrowth of an experience like their own.

As all students make observations, many records have no value apart from the wholesome endeavor that made them; but a progress in the significance of the things noticed, and in the manner of recording them, is apparent. During the latter part of a term the proportion of significant and valuable papers is greater than during the first part. All papers are carefully preserved (about two thousand have been collected each year), and it is hoped that they may be of value to students of child-nature; but the primary object of collecting them is the training of prospective teachers; and so highly does the work commend itself as a means to this end, that, if nothing ulterior to this is gained, complete satisfaction, and no disappointment, will be experienced.

Apprenticeship. — In addition to the work of the study and of the class room, systematic observation of schools, and actual practice in teaching under the joint supervision of the city superintendent of schools and the faculty of the normal school, constitute an important element in our course of training.

The general character of what is known in this school as the “apprenticeship” is this: the student, after three terms, or a year and a half, in the normal school, is allowed to go into one of the public schools of the city of Worcester to serve as assistant to the teacher of that school; to take part in the instruction, management, and general work of teaching, under the direction of the teacher; and even to act as substitute for the teacher for an hour, a half-day or a day, at the discretion of the latter and with the approval of the superintendent. One student only at a time is assigned to any one teacher; but each student serves in at least three grades of schools, in the course of his term of service, the duration of which is six months, or half a school year. After finishing his apprenticeship, the student resumes his course at the normal school, spending another half-year there before receiving his diploma.

During the period of apprenticeship four days of each week are devoted exclusively to it by those employed in the work. One day of the week (Wednesday) is spent by them in the normal school, where they are employed, not in the ordinary study and work of the institution, but in the following manner: —

They hold such consultation with the teachers of the school, and make such use of books, as may be most helpful to them in their immediate work as apprentices.

They make informal statements to the school of such facts of their experience as may be of advantage to the other students to hear, — concerning ways of teaching, cases of discipline and the like; keeping in mind always the private character of the daily life of the school-room, and under special warning against revelations that might seem objectionable.

Each apprentice keeps a diary of the occupation and experience of every day's service, and this record is inspected by the faculty of the normal school. He also makes out a report at the end of his term, in which he gives his own estimate of his success in his work.

The apprenticeship is designed to give the student practical acquaintance with the work of teaching, and training in that work. It is founded in the conviction that, whether education be a science or not, teaching in the public schools of Massachusetts is an art, — an art to the successful practice of which there is need of some initiation under the guidance of experience and skill, — an initiation akin to that which an apprentice passes through in learning his trade.

A secondary purpose is to furnish the faculty of the normal school with more full and satisfactory data for their estimate of the teaching ability of students. How the recruits will behave under fire, cannot be determined by drill in the manual or by dress parade. The apprenticeship goes far toward answering the important question. The apprentice is visited by the faculty of the normal school while engaged in his work, and is carefully observed and assisted by suggestions. The teacher of each school in which he has served makes out a report in the following form : —

STATE NORMAL SCHOOL AT WORCESTER.

Report of the apprentice work of _____.

Grade _____ Street School.

Time from _____ to _____.

Scale, 10 — Use no fractions.

Number of Absences.	Number of Tardinesses.	Power of Control.	Power of Interesting.	Skill in Questioning.	Skill in Explaining and Illustrating.	Enthusiasm.	Bearing.

1. What traits of excellence (if any) have been shown in teaching or management?

2. What weaknesses or deficiency?

(Signature) _____.

The additional six months of preparation required by the system under consideration secure to the student greater

maturity of body and mind. The need of such maturity is apparent in the case of the majority of those who enter upon the work of teaching.

That the object of the apprenticeship is attainable by the plan adopted is not merely probable, but is already a matter of ten years' experience. Moreover, the method is simply the extension of one that was for five years in successful operation in this school. The students are found to derive from their experience a fresh interest in their chosen work. They realize the practical bearings of the principles and methods they have studied; they acquire the "courage of having done the thing before;" they test their remedies for the school diseases of inattention, disobedience and the like, by trial on actual patients; they acquire skill that is of vast moment to them at the critical period when they take charge, as teachers, of their first school.

It is no small evidence of good results that the school board of the city of Worcester heartily approve the system, on the ground of the benefit accruing indirectly to the city schools, through the greater fitness of the apprentices to become teachers.

As the student of the normal school who passes successfully through the period of apprenticeship receives a certificate of the fact in connection with his diploma at graduation, the extra time required for the experience must in almost every case be more than made good by the greater probability of securing a position, and the greater likelihood of success at the outset of the teacher's career.

There are, however, individuals in the school for whom it is impossible or impracticable to undertake this special preparation. The apprenticeship is not enforced upon any student; it is simply recommended. Individuals who do not enter upon it enjoy all the advantages of the school, with this single exception.

NORMAL ART SCHOOL.

ORIGIN OF THE SCHOOL.

A petition was presented to the Legislature of 1869, asking that the Board of Education be requested to report a definite plan for providing instruction in drawing in all towns of the Commonwealth having more than five thousand inhabitants. This petition was signed by several well-known and highly esteemed citizens, connected with various branches of mechanical and manufacturing industry. In response, the Legislature passed a resolve, which was approved June 12, 1869, instructing the Board of Education to consider the expediency of making provision for giving free instruction to men, women and children, in mechanical drawing, in all towns having five thousand or more inhabitants, and to report a definite plan therefor to the next Legislature.

The Board, through a committee of three of its members and the secretary, recommended the passage of a law "which shall require elementary and free-hand drawing to be taught in all the public schools of every grade; and which shall further require all cities and towns of ——— inhabitants to make provisions for giving annually free instruction in industrial or mechanical drawing to men, women and children, in such manner as the Board shall prescribe." Accompanying its recommendations, the Board presented a series of papers embodying the suggestions and opinions of several of the ablest teachers of drawing in New England.

By an act of the Legislature approved May 16, 1870, drawing was included among the branches of learning required to be taught in the public schools. Provision was likewise made for giving free instruction in industrial or mechanical drawing, to persons over fifteen years of age, all to be under direction of the school committee. The above act was to take effect upon its passage. To engraft upon the educational system of the State this branch of instruction created a demand for special training in the art of drawing. But from what source were the instructors to come? Clearly an institution for training the teachers must be established, or no satisfactory results would follow.

ESTABLISHMENT OF THE SCHOOL.

In the autumn of 1871 the Board employed Mr. Walter Smith, recently from the Art School, Leeds, England, to be State director of art education. During the fall and winter of 1871-72 Mr. Smith examined all the drawing classes of the cities in the State which had made an effort to comply with the new law. Convinced by this round of inspection of the necessity of providing some means for the training of teachers in the new branch of study, he advised the establishment of a school for that purpose. The Board, acting upon Mr. Smith's recommendation, at once appealed to the Legislature for the means to establish a normal art school. The first appeal was not successful. The means were finally provided, and on Nov. 11, 1873, the school was located in rooms in the third story of a private dwelling then in possession of the State in Pemberton Square, Boston. A board of visitors was appointed by the Board of Education, conditions of membership were made, and Mr. Walter Smith was appointed director of the school. Mr. George H. Bartlett, the present principal, and Miss Mary Carter, were associated with Mr. Smith as instructors.

THE PLAN OF ORGANIZATION AND COURSE OF STUDIES.

The primary object of the school is to train teachers of industrial drawing. A specific aim at present is to prepare instructors to teach and superintend industrial drawing in the schools of the State. In addition to this, the object of the institution is to provide for high skill in technical drawing, and for industrial art culture.

The school offers two courses of study: One a four-years' course, which gives training in the scientific and artistic branches, and in their application to industry; another a two-years' course, which trains for the work of teaching and supervising drawing in our public schools. There are four classes, designated A, B, C and D. Class A is devoted to elementary drawing; Class B, to painting, and design for surface decoration; Class C, to the constructive arts and design; Class D, to modelling and design in the round. Having completed the work of Class A, B or D, the student, if he so desires, receives from the principal a written statement of the work

accomplished; having completed the work of classes A and C, students receive a diploma certifying that they are qualified to teach mechanical and architectural drawing; having completed that of classes A, B and D, they receive a diploma certifying to their qualifications to teach industrial art.

It is at the pupil's option, on entering Class A, to pursue a course of study which will fit him for teaching and supervising drawing in the public schools, or to elect a course which will prepare him to teach the broad subject of industrial art. The completion of the former course entitles the student to a special certificate. Those entering this division of Class A must pass an examination in English grammar and composition, United States History, geography, plane geometry, two books of Euclid, elements of botany and physiology. When pupils have graduated from the class for the work in the public schools, they are at liberty to go into the other classes of the school, perform the necessary work in those classes, and take the diplomas for teaching industrial art and mechanical drawing. Students who have completed the work of Class B or D, may, if prepared, be advanced to the antique class. A course of lectures on artistic anatomy is given every other year; this is open to all advanced students, and is followed by an examination.

The scientific principles involved in the constructive arts are taught in Class C, and each student is required to construct one or more objects in wood from his working drawings. Instruction is given in the use of the necessary tools for this purpose.

Post graduates are privileged to continue their studies for one year, on condition that they hold themselves in readiness to give some time to teaching in the school, if called upon by the principal. Students of the advanced classes, and all students under examination, are required to give teaching exercises to classes of students, and in presence of their teachers.

LOCATION OF THE SCHOOL.

The school, as already stated, was started in rooms of a dwelling-house in Pemberton Square. These were wholly inadequate to the demands, they being originally prepared for thirty-six students, while the school at first numbered one hundred and seven, and in a short time contained twice that

number. The Legislature of 1875 authorized the Sergeant-at-Arms to assign to the school other rooms in another dwelling in Pemberton Square. From this location in the fall of 1875 it was removed to rooms, ten in number, in School Street block, opposite the city hall. Here it remained for a term of five years, when it was again removed to better-fitted and more ample rooms in the Deacon house on Washington Street. Its last remove was in 1878, to a building constructed for its special use, on the corner of Dartmouth and Exeter streets. The Normal Art School building was constructed at an expense of about \$85,000. It is favorably located; though unadorned, it is artistic in design and finish; it is abundantly provided with the necessary appliances for art teaching, and is in every respect a model of convenience for the purposes it was built to serve.

TEACHERS, — PRINCIPALS AND ASSISTANTS.

The principals of the school have been Mr. Walter Smith, Mr. Otto Fuchs, and Mr. George H. Bartlett. With these has been associated an able corps of assistants.

The teachers at present are: Principal, Mr. George H. Bartlett. Assistants: Miss D. L. Hoyt, water-color painting; Mr. Albert H. Munsell, the antique and life model; Miss M. A. Bailey, oil painting and design; Mr. A. K. Cross, model drawing and perspective; Mr. Thomas E. Sweeney, modelling and casting; Miss L. M. Field, public school work; Mr. G. Jepson, mechanical drawing; Mr. Henry H. Kendall, architectural drawing; Mr. John L. Frisbie, ship draughting.

STUDENTS AND GRADUATES.

The number of students has kept pace with the constantly increasing means of accommodation, and was always in advance of these, until the art building was erected. The present number is two hundred and twenty. The number that have received certificates and diplomas is four hundred and ninety-eight; the number that have graduated from the full course is seventy-one.

VISITORS TO THE SCHOOL.

The committee appointed by the Board to report upon the legislative resolve of June 12, 1869, consisted of Messrs. David

H. Mason, John D. Philbrick, Gardiner G. Hubbard, of the Board, and Secretary Joseph White. On the establishment of the Normal Art School, the above-named persons were appointed its visitors. Rev. A. A. Miner has been one of its visitors during all the years of its existence; his devoted service to art culture and to the interests of this school deserve grateful recognition.

RESULTS OF THE ESTABLISHMENT OF THE SCHOOL.

The law of 1870, which required drawing to be taught in schools of all grades throughout the Commonwealth, went into operation in the absence of every direct means for its enforcement. There were but few teachers of drawing in the State; there was no published scheme for instruction in drawing which was adapted to the several grades of schools; there was no popular public sentiment among the people, which demanded its introduction into the list of branches required to be taught.

The Normal Art School has, during the seventeen years of its existence, prepared teachers of practical skill in the art of drawing for the evening schools, now kept in all the cities and large towns of the State. It has provided a large number of art directors and teachers of drawing for public and private schools, for the normal and technical schools, and for the collegiate institutions; and they are filling important positions in all parts of the country.

Drawing is now taught, largely without the aid of special teachers, in all our secondary schools, including the two hundred and twenty-six high schools, in evening schools in over fifty cities and towns, and in a large majority of the day schools of all grades. The report of Mr. Henry T. Bailey, agent of the Board, published in the appendix to this report, shows that drawing is taught to nearly eighty-nine per cent. of the school population. The effect of this instruction is producing a reflex influence, by introducing into the art school a class of pupils from the public schools already well advanced in free-hand and mechanical drawing, and prepared to enter at once upon advanced art studies.

But perhaps the most important result produced by the school is seen in its influence on the general culture of the

pupils in all schools where drawing is taught. It trains them to observe with accuracy and intelligence. Its exercises cultivate the imagination and the judgment; they increase the power of invention, and produce an evident effect in purifying the heart and refining the taste.

When the Normal Art School began its work, the highest ideal of drawing, in most schools which gave the subject any attention, was of picture-making, with little else beside copying from books; at present, the scheme for teaching this branch begins with moulding the elementary forms in clay, and extends through all grades of exercises to the highest form of the art. The present scheme is the elaborated product of much careful study and varied experience by numerous patient observers and workers; and, while it incorporates much that is of foreign birth, it avoids the mistakes of other countries, and furnishes a system of instruction well adapted to our own.

These schemes have been wrought out with great minuteness of detail, and have been published by the director and by the teachers trained in the art school. These will be found in the reports of the Board from 1874 onward. They have been freely distributed among all instructors of drawing, and have formed the basis of institute lectures, which have reached the large proportion of teachers in the public schools throughout the State. The schemes have been embodied in a special series of drawing books, and their leading features have been engrafted upon all text-books extant, for instruction in this branch.

Not only have drawing and art culture become naturalized in our schools, but there has been created among the people a more intelligent interest in art study than even now exists in those branches which have the sanction of antiquity. This result has followed from the attention which was early directed to the subject, through the exhibits made of art work in the several cities of the Commonwealth; and especially through the exhibits at populous centres, to which the surrounding cities and towns sent contributions of art work done in their own schools. The effect of these displays upon the throngs witnessing them, was to awaken a just pride in the taste and skill possessed by our children, as shown in the various phases of their art work. The examples presented by these and by the students of the art school have been of a character to com-

mand the admiration of competent judges at home and abroad, and to excite a spirit of emulation in all students and lovers of art throughout the State and the country. Art studies are not only more fully appreciated as the result of the good work now done, and directly or indirectly affecting every class room in the State, but the better appreciation has its basis in sound educational principles. Drawing is thus held in popular esteem upon its real merits, and so is certain to keep its place and increase in favor.

The school had for its primary object to train teachers of industrial drawing so as to comply with the law of 1870. This has been its constant aim; its success must be measured by the number of good teachers it has furnished to the schools. That it has had success in this regard is abundantly shown. This is its strong claim to public confidence and support. But the indirect result is what was anticipated by some of its early advocates, and what was inevitable: it is creating a taste among the people for art in designs foreign to our hitherto unfamiliar eyes, and at the same time is training designers and artists for manufacturing establishments, which but a few years since were wholly dependent upon aliens, or upon the product of their taste and skill brought from other markets.

The school has achieved for itself a high reputation for the greatest thoroughness in elementary drawing. Considering its early struggle for existence, and its humble beginning, it must be considered to have had a remarkable career.

The following propositions are taken from the synopsis of a graded programme of drawing for public schools, prepared by Mr. Walter Smith in 1879. They define the position early taken on this question of industrial drawing in the public schools.

1. All children who can be taught to read, write and cypher, can be taught to draw.
2. Drawing, as an elementary subject, should be taught by the regular teachers, and not by special instructors.
3. The true function of drawing in general education is to develop accuracy of perception and to exercise the imagination, thereby tending to produce a love of order and to nourish originality.
4. Educationally, drawing should be regarded as a means for the study of other subjects, such as geography, history, mechanics,

design. In general education, it is to be considered an instrument, not an ornament.

5. The practice of drawing is necessary to the possession of taste and skill in industry, and is therefore the common element of education for creating an enjoyment of the beautiful, and for a profitable, practical life.

6. In the primary, grammar and high schools, drawing is elementary and general; in the normal and evening schools, advanced and special,—for teaching purposes in the first, and for skilled industry in the second.

7. Good industrial art includes the scientific as well as the artistic element; science securing the necessity of true and permanent workmanship, art contributing the quality of attractiveness and beauty. The study of practical art by drawing should therefore comprehend the exactness of science by the use of instruments, as in geometrical drawing and designing; and the acquisition of the knowledge of the beautiful, and manual skill in expression, by free-hand drawing of historical masterpieces of art and choice natural forms.

8. Drawing may therefore take its legal place in the public schools as an element of, and not a specialty in, education, at as little cost as any other equally useful branch of instruction, with the prospect that as many persons will be able to draw well as can read and write well, and as large a proportion be able to design well as to produce a good English composition.

It is only necessary to see what is transpiring in all our best schools to-day, to be convinced that this initial theory is fully verified in practice.

STATE TEACHERS' INSTITUTES.

State teachers' institutes are held annually, in different parts of the State, for the purpose of co-operating with the normal schools in teaching the principles and methods of teaching, and their application to the various branches required to be taught in the public schools.

The idea of a school teachers' institute was invented at a teachers' convention held in Tompkins County, New York, some time, I believe, in the year 1843.

The first institutes were organized and supported by their members. Horace Mann, observing the work of these voluntary associations, thought it best to present to the teachers of Massachusetts an opportunity to judge of their value from personal experience. The result was our

STATE TEACHERS' INSTITUTES.

Hon. Edmund Dwight, a personal friend of Mr. Mann, and ever ready to aid him in carrying out his educational plans, contributed one thousand dollars to enable him to try the experiment of training the teachers of the Commonwealth by means of teachers' institutes. To encourage attendance, the funds contributed by Mr. Dwight were expended in paying the board of the members of the institute.

The first teachers' institute in Massachusetts was held in the town of Pittsfield, in the autumn of 1845, two years later than the first held in New York. The governor of the State, Geo. N. Briggs, was present, and was throughout the sessions one of the most attentive and interested observers. He was himself a graduate of the public common schools of western Massachusetts, and he knew well of their great deficiencies and their great importance. The experiment at Pittsfield was considered by all to be eminently successful. Governor Briggs, in his next message to the Massachusetts Legislature, recommended a generous appropriation for the support of teachers' institutes, to be held in different parts of the Commonwealth and under the direction of the State Board of Education. The recommendation was approved by an almost unanimous vote of the legisla-

tors of the State; and from that time the teachers' institute became a State institution.

ORGANIZATION OF INSTITUTES.

The first teachers' institutes ever held in the Commonwealth were conducted after the manner of a public school. The members were formed into classes; they were required to prepare lessons and recite them, and to conform in all respects to the formalities of a well-regulated school. The expenses of the members while attending the institutes were paid by the State, and their wages by the towns, the same as though they were doing their regular school work.

The exercises of the early institutes had less to do with a discussion of methods as founded on principles, than with a study of the subjects to be taught. Arithmetic, grammar, geography and reading, and those studies known as the common English branches, were pursued with reference to a knowledge of them as subjects, rather than with reference to the method by which they should be presented to the learner's mind. The evening exercises consisted of lectures on subjects of interest to the teachers and to the people as well. The lecturers endeavored to communicate information on important educational subjects; to magnify the value and necessity of popular education; and to awaken a deeper interest in the public schools.

INSTRUCTORS.

Among those accustomed to speak to the teachers and the people on educational topics at the first Massachusetts institutes were the most distinguished educators of that time. They were such men as Louis Agassiz, the great naturalist; Prof. Arnold Guyot, the most noted geographer of his time; Prof. William Russell, the renowned teacher of elocution; Dr. Lowell Mason, the pioneer teacher of vocal music in the public schools; Samuel S. Green, the grammarian; and Warren Colburn, the mathematician. These distinguished philosophers attracted the attention of the teachers of the Commonwealth, and inspired them with a desire to increase their knowledge of the subjects they taught, and to improve their methods of teaching these topics to others. The interest that these gentle-

men manifested in the simple work of the elementary schools, elevated these institutions in the estimation of the people and gave a new impulse to the cause of public instruction throughout the State. The State teachers' institutes, the normal schools, and special, well-educated supervision, as a means of placing over our public schools competent instructors, have done much towards producing a radical reformation in these institutions, and towards enlisting an intelligent sympathy in their support.

In Massachusetts, the State institutes are organized and directed by the State Board of Education. When the State Board is satisfied that fifty teachers of public schools desire to unite in forming a teachers' institute, it shall, by a committee or by its secretary, or, in case of his inability, by such person as it may delegate or appoint, give notice of a time and place for such meeting, and make suitable arrangements therefor. To defray the expenses, to procure teachers and lecturers for such institutes, a sum of money is annually appropriated, to be paid out of that half of the income of the school fund not apportioned for distribution to cities and towns. The Board may determine the length of time during which a teachers' institute shall remain in session, and what sum of money not exceeding three hundred dollars shall be appropriated to meet its expenses. These are the principal statutes regulating the establishment of the institutes. As a fact, the institutes are held wherever they are invited, or in those towns which may consent to receive one on invitation from the secretary of the Board. The secretary also organizes the institute, appoints the teachers, and arranges the exercises to be conducted. The school committee of the town in which an institute is to be held is requested to invite the teachers and school committees of as many other towns as it pleases, to join in the exercises and hospitalities of the occasion. In later years, the institutes have been attended by school officers as well as by teachers, and by the people of the community in large numbers.

SUBJECTS OF INSTRUCTION.

The subjects taught are : first, the principles of teaching and the true method founded upon them ; second, the application of the method to teaching the various branches enumerated in

the list of compulsory studies. This includes presenting to the institute a set of topics on the study brought before it, and a full plan of teaching these topics to others. The means of illustration are presented also, as well as the manner of using them.

It is the duty of the institute teacher to show that, in the construction of the topics he presents, he has provided for teaching his subject according to the principles illustrated in the lesson already given on principles of teaching. In teaching the individual topics themselves, he is expected to exhibit a practical application of the true method, founded on the same principles. In this way it will appear that the work of the institute is to train its members to teach, rather than to give them information. Great care should be exercised in presenting the principles of teaching. The laws of the human mind which control it in the acquisition of knowledge and in the development of its faculties, cannot be made objects of consciousness by means of words alone. Learned lectures written and read on this subject to a company of young persons who have never before directed their attention to it, do not always communicate much solid information, nor are they the occasions of much useful knowledge. The subject must be *taught* by directing the mind to its own operations and to the conditions necessary for their performance.

In teaching to the members of an institute the laws of the mind upon which all teaching depends, a simple plan may be devised, by which these most important and fundamental topics may be made clear to all who give their earnest attention to the exercise. The institute teacher should teach, — not tell his class in words, but teach the definition of teaching. A clear understanding of what it is to teach is important. It will prevent the teacher from too much talking and explaining, and assigning lessons from text-books, to be committed to memory and recited without ideas or without any development of active power. It will lead him to present the objects and subjects of the lessons to the learner's mind, and simply direct the thinking that should follow. After the definition of teaching has been thus presented, the ways or methods of performing this act should be considered.

School exercises may accomplish three ends: (1) they may

direct the pupil to some useful knowledge, (2) to a right method of study, (3) to a right use of the faculties. There is a logical relation between the analytic method of teaching and the ends to be secured by its use. This part of the subject should be made clear by objective illustrations, in which the members should be made familiar with the application of method in teaching.

The lesson on the principles and method of teaching is the most important exercise that can be brought before a teachers' institute. If it is successfully given and faithfully received, it will communicate that knowledge which will make intelligent work of every school exercise the teacher will be required to conduct. It will guide him to a true course of studies and to a way of presenting to the mind of the learner the different subjects enumerated in the course. It will prevent him from making the unfortunate mistakes that a false philosophy is sure to introduce.

The lessons of the institute that follow the first should all be given after the same manner, and for the purpose of making the teachers familiar with the application of the principles and method of teaching the various branches which are required to be pursued in the schools. These illustrative exercises will include an exhibition of both elementary and scientific teaching; and an explanation of elementary, as distinguished from scientific, knowledge. This will require the institute teacher to supply himself with the means of teaching the facts he would present to his class, and to use them with special reference to the scientific teaching that is some time to follow. That he may give to his institute class the best exhibition of his skill as an elementary teacher, he should be provided with a class of children, and spend a portion of the time allotted to his lesson in directing them in their elementary thinking, and in giving proper expression to their thoughts.

Complaint is sometimes made that the exercises of the institutes are too exclusively confined to elementary topics of study and teaching, and that no scheme of scientific work is illustrated. The institute lessons should include both the elementary and the scientific elements of instruction, not omitting industrial drawing, modelling in clay, the construction of simple apparatus for illustrating the facts of natural science, and vocal music.

MORAL TRAINING.

A simple system of moral instruction should also be taught, in connection with a plan for intellectual training. The mind is developed as a moral power, by turning its attention to the moral quality of its acts, and to doing what ought to be done. The cultivation of moral habits should be carried on with the cultivation of the intellect. The relations of school life, and the various exercises of the schools, provide favorable occasions for the development of the moral nature of the child. The teacher is supposed to be a model person, worthy of imitation. If this supposition accords with the facts, the pupils will be subject to the moulding influences of a good example. The natural desire and the ability to imitate, render the education of the young possible, and magnify the importance of a good living example.

The acts of obedience which a wise and efficient school government require, will train the pupil to a thoughtful consideration of his conduct, and to the habit of self-control. The habit of loyalty to the rules and regulations of the school, accompanied with a desire to promote its welfare, must be cultivated in the minds of the young, as a preparation for good citizenship. Hence the teaching of the institute includes instruction in school government. The exercise of studying by the use of the true method will develop the intellect, and create in it the power to think so as to discover the truth. The habit of independent deliberation before making a choice is most favorable to good morals. To create such a habit is the constant aim of the intelligent teacher.

The relations of pupils in school to one another as a community will offer an opportunity for instruction on the subject of public as well as private morals. Since the affairs of social life are carried on in connection with promises and contracts, and as promises will avail nothing if the members of society are not faithful in making them, and do not trust in them when made, the teacher should endeavor to impress upon the minds he is attempting to develop the infinite value of fidelity to that which is morally right, and the obligation every member of the school is under to exercise it in all the moral relations he holds to others, as well as in all he holds to his own well-being. Such fidelity in the relations of social life, and of the life of the indi-

vidual, is the vital element in all the virtues. If successfully cultivated in the minds of the children in our public schools, in connection with their physical and intellectual instruction, this fundamental virtue will appear as a ruling principle in their lives as citizens of the State. The best ideas on the moral training of the young are in favor of the right development of the mind as an intellect, as the only solid foundation for good morals. A rational plan of moral instruction should be the subject of one important lesson at every State teachers' institute.

PREPARATION FOR INSTRUCTION.

The teachers selected to give instruction at these gatherings should be thoroughly educated persons, both in the philosophy of teaching and in the various subjects of instruction. They should make special preparation for every lesson they teach, that no time may be lost in attempts to say something or do something which may produce a temporary sensation, though it has no educational value. They should have an abundance of common-sense,—that original gift to a portion of the race, valuable for its discriminating power, in judging of the proprieties of time and place, and for its foresight in preventing mistakes.

Teachers' institutes, if rightly managed, may produce some good results. They furnish an opportunity to the teachers of a community to become acquainted with one another. The association of professional people with one another enables them to make common what each one knows.

The teachers' institutes furnish occasions for improvement in study and teaching, by directing attention to new ideas, and by exciting an ambition to study. They magnify the importance of popular education, and strengthen the schools in public esteem, by improving them. They encourage the teachers to attend the normal schools, and the school authorities to employ trained teachers.

Neither training schools nor teachers' institutes can take the place of normal schools. The one may add some skill to the work of the school teacher, and the other may give some useful hints, and awaken ambition to improve; but it is reserved to the normal school to teach the science and art and history of teaching, and prepare the teacher for an intelligent application of his knowledge, so as to secure the great ends of school life.

TEACHERS' INSTITUTES FOR 1889.

The following is an account of the State teachers' institutes held during the year 1889 :—

WHERE HELD.	Date.	Number of Towns rep- resented.	Number of Members.	Number of Exercises.	Conducted by—
Adams, . . .	Oct. 16,	5	85	7	Mr. G. T. Fletcher.
Franklin, . . .	Nov. 18,	5	74	7	Mr. John T. Prince.
Gardner, . . .	Oct. 11,	4	79	8	Mr. A. W. Edson.
Georgetown, . . .	Oct. 11,	5	39	6	Mr. Geo. H. Martin.
Grafton, . . .	Oct. 9,	4	70	8	Mr. Edson.
Greenfield, . . .	Oct. 18,	8	120	7	Mr. Fletcher.
Huntington, . . .	Oct. 22,	9	73	8	Mr. Fletcher.
Kingston, . . .	Nov. 15,	3	56	8	Mr. Martin.
Mattapoisett, . . .	Nov. 13,	7	53	7	Mr. Martin.
Monson, . . .	Oct. 8,	6	90	8	Mr. Edson.
New Salem, . . .	May 3,	4	25	7	Mr. Fletcher.
Newton, . . .	Nov. 22,	1	112	11	Mr. Geo. A. Walton.
North Easton, . . .	Nov. 11,	5	73	7	Mr. Prince.
Norwood, . . .	Oct. 25,	4	68	6	Mr. Prince.
Peabody, . . .	Nov. 8,	7	98	6	Mr. Walton.
Quincy, . . .	Dec. 31,	3	107	4	Mr. J. W. Dickinson.
Rehoboth, . . .	Oct. 18,	5	60	7	Mr. Prince.
Rowe, . . .	Oct. 29,	3	20	7	Mr. Fletcher.
South Acton, . . .	Dec. 13,	9	85	8	Mr. Walton.
South Yarmouth, . . .	Nov. 14,	6	53	7	Mr. Walton.
Templeton, . . .	Oct. 10,	5	86	8	Mr. Edson.
Wilmington, . . .	May 31,	7	42	7	Mr. Walton.
Total, . . . 22		115	1,568	159	

MEMBERSHIP.

The policy of restricting the numbers attending the institute at any one place, which has been pursued for several years, grew out of the desire to place the institutes in small towns, and out of a proper consideration for the people who were to entertain the members. The policy has become a settled one, not alone for the reasons mentioned, but that the distractions caused by large numbers might be avoided, and that the instruction given might be more personal and direct.

It is customary to ascertain the number in attendance at each institute. In this number are included all teachers, whether at present employed or not, and all school officers.

The following is the list, as reported for the present year, 1889:—

Towns Represented in the Institutes.

TOWNS.	Number of Persons.	TOWNS.	Number of Persons.
Acton,	16	Lynn,	3
Acushnet,	2	Marion,	8
Adams,	—	Mattapoisett,	10
Ashburnham,	14	Maynard,	15
Athol,	16	Medway,	16
Becket,	—	Middlefield,	—
Bellingham,	8	Middleton,	4
Bernardston,	—	Millbury,	16
Blandford,	—	Milton,	18
Boxborough,	8	Monson,	45
Boxford,	6	Monroe,	2
Brewster,	8	Montague,	—
Brimfield,	4	Montgomery,	—
Burlington,	2	Newbury,	3
Canton,	18	New Salem,	—
Chatham,	7	Newton,	112
Chester,	—	Norfolk,	6
Chesterfield,	—	North Adams,	—
Clarksburg,	—	North Reading,	4
Colrain,	—	Norwood,	12
Concord,	13	Orleans,	4
Danvers,	29	Palmer,	30
Dartmouth,	1	Peabody,	44
Dedham,	37	Petersham,	—
Deerfield,	5	Phillipston,	7
Dennis,	13	Plymouth,	30
Dighton,	13	Prescott,	—
Dracut,	2	Quincy,	70
Duxbury,	11	Raynham,	10
Easton,	30	Reading,	12
Fairhaven,	17	Rehoboth,	18
Franklin,	27	Rochester,	3
Gardner,	32	Rowe,	6
Georgetown,	17	Royalston,	9
Gill,	—	Russell,	—
Grafton,	26	Salem,	3
Greenfield,	—	Savoy,	—
Groveland,	9	Seekonk,	9
Harwich,	15	Sharon,	7
Heath,	3	Shelburne,	—
Hingham,	1	Shutesbury,	—
Holland,	2	Somerset,	9
Hubbardston,	11	Stoneham,	1
Hudson,	2	Stoughton,	15
Huntington,	—	Stow,	9
Kingston,	15	Sudbury,	8
Leyden,	—	Sutton,	15
Littleton,	12	Swampscott,	14
Ludlow,	2	Swanzy,	11

Towns Represented in the Institutes — Concluded.

TOWNS.	Number of Persons.	TOWNS.	Number of Persons.
Templeton,	43	Westford,	2
Tewksbury,	10	Westminster,	13
Topsfield,	4	Williamstown,	—
Upton,	12	Wilmington,	11
Wales,	7	Winchendon,	20
Walpole,	12	Worthington,	—
Wareham,	12	Wrentham,	17
Wendell,	—	Yarmouth,	6

EXERCISES AND INSTRUCTORS.

About twenty evening lectures were given in connection with the institutes. These lectures presented some educational topics of general interest, as “School Supervision,” “What can be done to improve the Public Schools?” “Popular Education,” “Characteristics of Good Citizenship,” etc. They were given by the secretary and agents of the Board, by Rev. A. D. Mayo and Pres. H. T. Fuller of the Worcester Polytechnic Institute. Though some of the institutes were held in the smaller towns, yet the lectures called together good audiences.

The day exercises were model lessons, for the purpose of illustrating improved methods in the various branches of school studies. These were presented by the following instructors: Secretary Dickinson, principles and methods of teaching; application of principles to teaching rhetoric and written composition. Agent Walton, principles of teaching; arithmetic and penmanship. Agent Martin, principles of teaching; history and elements of science. Agent Prince, school organization. Agent Edson, reading and language. Agent Fletcher, reading, language and arithmetic. Agent Henry T. Bailey, moulding and drawing. Miss Elvira Carver of Westfield, geography and language. Miss I. S. Horne of Bridgewater, advanced reading. Miss Lucy Wheelock of Chauncy Hall School, Boston, kindergarten methods applied to primary-school instruction. Miss Edith A. Garfield of Maynard, primary reading and numbers with class. Superintendent T. M. Balliet of Springfield, arithmetic and geography. Superin-

tendent E. H. Davis of Chelsea, with teachers and classes, primary reading. Superintendent I. F. Hall of Leominster, language. Mr. H. Hitchings of Boston, drawing. Superintendent George I. Aldrich of Quincy, arithmetic, language and geography. Mr. C. E. Adams of Salem, elements of natural science. Mr. F. F. Murdock of Bridgewater, geography and physiology. Mr. A. C. Longden of Westfield, chemistry. Mr. A. C. Boyden of Bridgewater, physiology, history and elements of natural science. Dr. J. N. Hailman, superintendent of schools of La Porte, Ind., with an exhibit of pupils' work from the kindergarten to the high school, educational value of modelling and drawing.

SPECIAL INSTITUTES.

The lectures of Dr. Hailman deserve special mention for their pedagogical value. The lecturer disclaimed any intention of presenting a plan or scheme for teaching drawing. His whole purpose was to show how the heart and brain of the child can be developed through moulding, folding, drawing and coloring, and through a combination of these exercises. To this end every exercise is made to call into active use the child's creative power. His first drawings exercise this power unaided; every exercise which follows leaves some scope for his imagination, his invention and his manual skill to play their part. Spontaneity characterizes all the pupils' work, and joyousness is a criterion by which its adaptability in form or method to the child is to be tested. All the exercises occasion manual training. From the first simple exercises in paper folding or coloring, the child's social nature is under cultivation. Arranged about tables, the pupils contribute to form a design which shall be symmetrical, each pupil's gift being bestowed in obedience to those previously arranged. Harmony of colors is learned from a similar exercise in arranging forms having different colors. Training the child to love the beautiful is an underlying principle in all the lessons.

An institute held at Newton presents some features unlike most of the institutes of the present year, and of recent years. It was made for the teachers of Newton alone. The teachers of the city number about one hundred, and the schools are carefully graded. The institute as a whole assembled, and

received one lesson upon the principles and methods of teaching; it was then formed into three sections, — the primary, the grammar, and the high-school section, each of which received instruction upon methods of teaching applied to its special kinds of work. The plan was heartily approved by the institute, and is likely to produce more immediate results than if all the exercises, which must have been restricted in time, had been given to the institute as a whole.

All the institutes have been cordially welcomed to the several localities where held. They have received the usual hospitable entertainment from the citizens. The people in considerable numbers were present, both day and evening, at most of them. At several, resolutions were passed commending the work of the officials of the Board, with the instructors employed. The presence of large numbers of committees and superintendents was a distinguishing feature of the year's institutes.

AGENTS OF THE BOARD.

At the beginning of the school year, the State, for the work of the five State agents of the Board, was divided into five sections, which were assigned as follows :—

<i>Districts.</i>	<i>Agents.</i>
Berkshire,	} G. T. FLETCHER.
Franklin,	
Hampshire,	
Worcester,	} A. W. EDSON.
Hampden,	
Middlesex,	} GEO. A. WALTON.
Barnstable,	
Essex,	} GEO. H. MARTIN.
Plymouth,	
Suffolk,	
Dukes,	
Nantucket,	
Norfolk,	} J. T. PRINCE.
Bristol,	

Mr. H. T. Bailey, the agent for the introduction of industrial drawing, has for his field the entire State.

In connection with the inspection of the public schools of the districts, each of the five agents was requested to organize four State teachers' institutes in his own district. These institutes were held during the months of September, October, November and December. The results are reported under the title, "Teachers' Institutes."

Reports of the general work of the agents will be found in the Appendix. By these reports the importance of the office of visiting agents of the State, in connection with the administration of our State system of public schools, will readily appear. The inspection of the schools by the agents is one source of information upon which school legislation may be intelligently based. It aids the school authorities of the towns, by directing attention to any defects that may exist in their administration; it encourages the teachers, by furnishing an opportunity to commend to public notice whatever in their

work is worthy of approval ; it stimulates them to study for improvement, by pointing out errors, and good ways of avoiding them ; and it cultivates an earnest school spirit in the minds of the people, by bringing before them, in an intelligent manner, the true condition of the schools, and the importance of giving them a cordial and generous support.

The reports of the agents show that many teachers are chosen without the examination required by law ; that many are set to work without any well-prepared courses of study to teach, or without adequate means to use in teaching ; and that in too many cases the term of office during which the teachers are allowed to teach in one school is too short for the best results. These defects can be remedied by an efficient local supervision, which will persistently carry into execution improvements that may be devised.

SCHOOL SUPERINTENDENCE.

The State requires every town to elect annually a school board, and confers upon it the authority of general charge and superintendence of the public schools. The charge and superintendence of the schools includes the duties of selecting and examining the teachers, of arranging courses of studies, of directing methods of instruction and school government, of providing proper means of teaching and study, of securing the attendance of all the children of school age, of inspecting the school-houses with reference to their sanitary condition and the schools with reference to their management and progress. Such superintendence requires the entire service of men who have made educational methods a special study, and who have had a successful experience in the management of schools.

The school committees generally feel, that, as now organized in the State, they have neither the time nor the opportunity to become familiar with the responsible duties of school supervision, and to perform these duties in the most efficient manner. While doing all for the schools that time and experience permit, and all that the towns have a right to expect, the committees still know, that, if left entirely to their care, school affairs must be more or less neglected, and much of the important work of superintendence be improperly done. For these reasons all the larger towns of the Commonwealth have made provision for special and efficient supervision of their schools by skilled agents, who, acting under the direction of the school committees, give their entire time to the performance of the duties for which the statutes have made the committees responsible. A careful and extended examination of the schools of these towns shows that they excel other schools in proportion to the superior excellence of their supervision.

The resolve providing for the employment of school superintendents was passed in 1854. For some years after its passage, the towns were slow in availing themselves of the advantages of its provisions; but since the demand for better educational results has become more urgent and quite universal, the necessity of an improved supervision has become more apparent. From the last returns it appears that now seventy-

four per cent. of the entire school population of the State is under special supervision.

THE LAW OF 1888.

The small towns are generally unable to provide each for itself a special school superintendent, by reason of their small schools, heavy taxes and limited valuations. To aid them in providing themselves with this important agency in the management of their schools, chapter 431 of the Acts of the Legislature of 1888 provides as follows : —

SECTION 1. Any two or more towns the valuation of each of which does not exceed two million five hundred thousand dollars, and the aggregate number of schools in all of which is not more than fifty nor less than thirty, may, by vote of the several towns, unite for the purpose of the employment of a superintendent of schools under the provisions of this act.

SECT. 2. When such a union has been effected, the school committees of the towns comprising the union shall form a joint committee, and for the purposes of this act said joint committee shall be held to be the agents of each town comprising the union. Said committee shall meet annually in joint convention in the month of April at a day and place agreed upon by the chairman of the committees of the several towns comprising the union, and shall organize by the choice of a chairman and secretary. They shall choose, by ballot, a superintendent of schools; determine the relative amount of service to be performed by him in each town; fix his salary, and apportion the amount thereof to be paid by the several towns, and certify such amount to the treasurer of each town.

State Aid for Superintendents.

SECT. 3. Whenever the chairman and secretary of such joint committee shall certify to the state auditor, under oath, that a union has been effected as herein provided, that the towns, in addition to an amount equal to the average of the total sum paid by the several towns for schools during the three years next preceding, unitedly have raised by taxation and appropriated a sum not less than seven hundred and fifty dollars for the support of a superintendent of schools, and that under the provisions of this act a superintendent of schools has been employed for one year, a warrant shall be drawn upon the treasurer of the Commonwealth for the payment of one thousand dollars, one-half of which amount shall be paid for the salary of such superintendent and the remaining one-half shall be

apportioned and distributed on the basis of the average public school attendance of the towns forming such district for the year next preceding, which amount shall be paid for the salaries of teachers employed in the public schools within such district.

SECT. 4. A sum not exceeding twelve thousand five hundred dollars shall be annually appropriated for the purposes of this act.

SECT. 5. The provisions of section forty-three of chapter forty-four of the Public Statutes respecting the service of school committees without pay in towns where a superintendent is appointed, shall not apply to towns uniting in the employment of a superintendent under the provisions of this act.

Subsequent to the passage of the Act of 1888, a circular was issued by this department, recommending that the towns to which the provisions of this law were applicable should organize themselves into convenient districts, for the employment of well-trained school superintendents. The law was not enacted in time for action to be easily taken by the towns in the spring of 1888. Walpole and Bridgewater, having already united under the old law for the employment of one person to superintend the schools of the two towns, and both coming within the scope of the new law, proceeded to organize themselves into a supervisory district, under the law of 1888. Other districts were formed in the spring of 1889, as follows:—

*Towns that have formed Themselves into Superintendent Districts
under the Act of 1888.*

SUPERINTENDENT DISTRICTS FORMED IN 1889.	SUPERINTENDENTS.	
	Name.	Residence.
Abington and Rockland,	—	—
Ayer, Littleton and Pepperell,	Mr. N. Wiggin, .	Ayer.
Dalton, Cheshire and Lanesborough,	Earl Ingalls, .	Cheshire.
Easthampton, Southampton and Westhampton,	E. B. McLaughlin, .	Easthampton.
Hopkinton and Ashland,	J. C. Phillips, .	Hopkinton.
Orange, Erving and Wendell,	R. C. French, .	Orange.
Scituate, Marshfield and Duxbury,	E. H. Watson, .	East Marshfield.
Templeton, Phillipston, Hubbard- ston and Royalston,	R. J. Condon, .	Templeton.
Walpole and Bridgewater,	F. W. Sweet, .	Bridgewater.
Whately, Conway, Sunderland and Williamsburg,	Justus Dartt, .	East Whately.

Towns that are united under Earlier Laws for the Employment of a Superintendent.

TOWNS UNITED.	SUPERINTENDENTS.	
	Name.	Residence.
Canton and Easton,	W. C. Bates,	Canton.
Hingham and Cohasset,	L. P. Nash,	Hingham.
Manchester and Rockport,	J. B. Gifford,	Rockport.
Medford and Winchester,	E. Hunt,	Medford.
Quincy and Milton,	Geo. I. Aldrich,	Quincy.
Westford and Stow,	J. S. Moulton,	Westford.

All but three of the towns in the list last named have valuations in excess of two million five hundred thousand dollars, and on this account are excluded from the operations of the law of 1888. It appears from the above lists that there are in the State forty-one towns that are formed into sixteen districts under this special form of superintendence. Thirteen of these districts were formed during the past year. The plan of uniting towns for the purpose of employing a superintendent of schools had proved a success in every instance where tried, previous to the enactment of the law of 1888. The State aid for which provision was made in the new law placed the possibility of securing skilled supervision within reach of the smallest towns. Several of them were prompt to avail themselves of its provisions, and are reaping the benefit of their acts.

THE OPERATION OF THE LAW.

So far as the law has been tested, it is meeting with general favor. Before a trial of the principle of uniting the towns was made, some fears were expressed that such union might excite jealousy and produce friction. By the provisions of the law of 1888, the school committees of the several towns forming the union meet in April, elect a superintendent, and apportion among the towns the amount of service he is to render, and the

salary he is to receive ; when this has been done, the purposes of the union have been accomplished. As the superintendent goes from town to town in the performance of his duties, he is under the entire control of the school committee whose schools he happens to be supervising. As a fact, there has been no jealousy generated or friction produced.

The application of the law has met with slight obstacles in the towns desiring to act under it. Some have not found towns within their vicinity ready to enter into a union. Again, it is necessary under the law, that a union of the towns shall first be formed by a vote of each one of the number in the group desiring to avail itself of the provisions of the law. That a union may be legally formed, each of the towns voting must specify all the towns with which it proposes to unite. If any town in a specified group votes adversely to the union, its action vitiates the action of all the towns of the group. This makes it very desirable that the will of all the towns of the group shall be known before the vote to unite is passed in any one of them.

It is, however, competent for the town to act under an article which does not designate the towns to form the union. The article may be as follows : to see if the town will accept the provisions of chapter 431, Acts of 1888, relating to the employment of a superintendent of schools, and appropriate money therefor. But the motion under this article must designate the towns of the proposed group by name. We have authority for suggesting that the vote in town meeting under the article may be as follows : that the town unite with A, B, C and D, or with one or more of them, for the purpose of employing a superintendent of schools, under the provisions of chapter 431, Acts of 1888.

Questions have arisen relating to the amount of salary to be paid to the superintendent. The minimum salary was designed by the law to be \$1,250. The law has been practically so interpreted in every case. In some of the districts the towns may have paid a higher sum.

It is necessary for the officers of the convention of school committees of the towns uniting, to certify to the treasurer of each town represented in the union, the name of the person elected to be superintendent, and the portion which the town

is to pay of his salary. The following form of certificate is suggested : —

COMMONWEALTH OF MASSACHUSETTS.

SS. _____, MASS., 18 .
To _____, Treasurer of the town of _____.

DEAR SIR : — You are hereby notified that, at a joint convention of the school committees of the towns of _____, held this day under the provisions of chapter 431 of the Acts of 1888, _____ was elected superintendent of schools for said towns, and his salary was fixed at _____ dollars, of which amount the town of _____ is to pay the sum of _____ dollars.

(Signed) _____, Chairman.
_____, Secretary.

The intent of this law is to improve the schools, and aid the small towns in supporting them. Its enactment reflects great credit upon the wisdom of our legislators, and exhibits a cordial spirit towards the public schools.

ADVANTAGES OF EMPLOYING SUPERINTENDENTS.

The following, in brief, are some of the advantages to be derived from such employment : —

1. The supervision of the schools is more uniform and more intelligent. The small schools and the poor schools are better cared for. The straggling members of classes are kept up to grade.

2. The needs of the schools are more fully and more promptly supplied.

3. There is more system in the school work. The schools are better organized and classified. Promotions are more intelligently made.

4. Teachers are selected with greater care. They are trained on the ground, and thus make more rapid improvement.

5. The pupils learn more. The results are more practical in the knowledge acquired and in the mental training received.

6. There is greater economy in the purchase and use of supplies. School property is better cared for.

These results are due to the fact that superintendents have qualifications which most committees do not possess : —

1. Experience in teaching and managing schools.

2. Observation of the best schools in other towns and cities.
3. A knowledge derived from pedagogical study.
4. Time for the duties of their office, and pay for the service given.

DUTIES OF SCHOOL SUPERINTENDENTS.

The laws of Massachusetts provide that the school committees of the towns shall have general charge and superintendence of the public schools. The authority and duties exercised and performed by superintendents must, then, be delegated to them by the school committees whose agents they are. That we may know what the delegated authority is, we must refer to the legal authority from which it is derived. Let us then direct our attention, first, to the authority and duties of the school committees as established by the State. The authority implied in the general provision of the statute to which reference was made has received a judicial interpretation. According to decisions of the supreme court, the authority to exercise the general charge and supervision of the public schools is the authority to determine how many schools a town shall support; the qualifications for admission to the schools; the age at which children may enter; the age to which they may continue; and the authority to arrange, classify and distribute pupils in the various schools, in such manner as the committee may think best adapted to the general proficiency and welfare of the pupils.

By express statute the school committee have exclusive authority in selecting and contracting with the teachers of the public schools. This is to be done through a personal examination, which shall furnish satisfactory evidence concerning the intellectual and moral character of the candidate for the office of teacher in the public schools, and concerning his qualifications to discharge the duties of that office as teacher and governor of those to be placed under his charge. The committee may appoint a teacher to serve during their pleasure, and may at any time dismiss a teacher from their employment.

They may arrange a course of studies and exercises for the schools, and compel the children to observe the arrangement and perform the exercises. But it must not be forgotten, that, while the committee have the right to arrange the course of studies, they have no authority to add new topics to those

enumerated in the statutes, with the idea of making such a course compulsory. But all subordinate topics to those included in the compulsory course may also be made compulsory. Written composition and declamation may properly be included in the study of grammar and reading. Book-keeping is an application of arithmetic, and civil polity may be pursued as an element of history.

The school committee determine what text-books shall be used; they may determine what method of teaching and school government shall be practised. They may fix the standard of scholarship which the pupils must attain, to entitle them to promotion from one grade of study to another, and to final graduation. They must appoint truant officers, who, under the direction of the committee, are to execute the laws relating to attendance of the children, and who are alone authorized to prosecute offenders. They are to keep the school-houses in good repair, and to have full control of them, so far as their use is concerned.

They are to take the school census annually in the month of May, for the purpose of ascertaining the names and ages of all persons between five and fifteen years in the towns; and, finally, they are to make an annual report to their municipalities of the condition of the schools; and a return to the State, in answer to such questions as the State Board of Education may see fit to propose. To do all these things well, requires time, learning and experience.

That no one of the school interests which belong to supervision to promote may suffer from neglect, every school system should include in its organization a plan for the employment of special agents, skilled by study and experience in directing the general conduct of everything that pertains to the internal life of the schools. These men should have more wisdom and goodness and power, in so far as these things relate to school affairs, than the school committee whose agents they are, or the teachers whose methods they are to invent or approve, or the parents whose judgments with reference to the education of their children they are to guide. Possessing these natural gifts and acquirements, united with their delegated rights, they will have the unquestioned authority to fill the responsible office of superintendent of schools.

As the school committees are the school officers known to the law, the superintendents appointed by them are to be considered their agents. Such superintendents, therefore, have no independent authority, nor are they to perform any acts without the approval of those whose agents they are. But, as there is a permissive law providing for such agents, and as the towns may require their appointment, it follows that, wherever the appointment is made, there is an expression of the will both of the State and the town, that some of the authority and duties which we have found to belong primarily to school committees, should be delegated and assigned to their appointed agents. It is to be expected, therefore, that all those duties which require special learning, skill and experience in public-school instruction, shall be performed by those specially provided by a law of the State and a vote of the town for that purpose.

NOMINATION OF TEACHERS.

It should be made their duty and privilege to nominate the teachers that the committee are to elect. This is a most important duty and privilege. No outside effort will make a good school, if the teacher is inefficient. A good teacher is to be discovered by examination. The examination of the candidate should be a test of his general scholarship, of his knowledge of the subjects required to be taught in the public schools, and of the principles and methods of teaching; of his skill in the use of his methods; of his ways of controlling the conduct of the pupils; of his manners, of his habits, and of his character. Attention should also be directed to the condition of the body, to see if it is strong enough to endure in a cheerful and hopeful manner all the cares and responsibilities and hard work that are peculiar to the teacher's office. The examination may be conducted in any one of two or three ways, and the superintendent should choose his own. It may be by verbal questions and answers, relating to school topics of study or to the principles and methods of teaching. It may be by observing the teacher at his work, or by giving him a brief trial in the school he is to teach. The superintendent who has been disappointed sometimes in his selections, will combine these different ways and use them all, and be as sure as possible that

he is making no experiment in introducing a new teacher into the schools under his supervision.

After the teacher is found and in his place, it is the duty of the superintendent to sympathize and co-operate with him in the performance of all his duties, leaving him as free as possible to exercise his own skill in conducting the exercises of his school.

ARRANGEMENT OF STUDIES.

The branches of study required to be taught are generally enumerated in the statutes. The development of the course and the arrangement of the topics are assigned to school boards. On account of the importance of this work, and of its technical character, the school boards should not only provide well-constructed courses for their schools, but they should assign the duty of preparing the courses to the superintendent, subject to their approval.

The principles that furnish the only sure guide in the preparation of a course of studies, are found in a knowledge of the human mind, of the ends to be secured by school exercises, and of the relations that different branches of learning bear to one another. The educational value of a branch of learning depends on the vigorous and healthy exercise it occasions the mind to exert; on the relations which a knowledge of the branch holds to other knowledge; and on the interest it awakens in the general pursuit of truth. A superficial thinker would be likely to estimate the importance of a topic of study by reference to its commercial value only. He would divide the subjects of our ordinary courses of studies into two distinct kinds, calling the one kind ornamental and the other practical. Such educators apply the term practical to knowledge rather than to the development of the faculties, and so fail of comprehending the supreme end of school exercises.

The skilled superintendent, if the liberty is delegated to him, will frame his course of studies and exercises with reference to those forms of mental activity which will produce the best development of mental strength. The power and beauty of a general development is always in danger of being perverted by special study. It is for this reason that special courses should follow general courses, and never precede them or be mixed up

with them. The course of studies made out by the superintendent should be somewhat general in its character ; never so minute in its specified times and quantities and pages and authors, as to take away all liberty from the teacher to use his own learning and acquired skill.

METHODS OF TEACHING.

The person employed by the school board to act as its agent in arranging the topics of study, should also be permitted to determine by what method they shall be presented to the learner's mind. As intellectual discipline consists in the facility acquired in the use of a true method of thinking on appropriate objects of thought, the method of teaching and study practised by teachers and pupils is of the first importance. From the first lesson in school to the last, the teacher should direct his careful attention to presenting right occasions for that process of thinking by his pupils which will train them in the right way of investigating for all forms of knowledge. This training, with all that practice of handling the objects of knowledge implied in it, is practical education ; for it cultivates the power of thinking, the most practical acquisition the human mind can make ; and, delivering the mind from the narrowing effects of any special work, furnishes it with that general intelligence which prepares one for unlimited progress in any special work he may afterwards desire to undertake. For these reasons, the superintendent will make the introduction of the right method of teaching and learning into his schools the object of his most earnest attention.

SELECTION OF TEXT-BOOKS.

No one is fully qualified to select a text-book until he has himself used it in the classes. If this is impossible, then a knowledge of the subject presented in the book, and of the true method of teaching all subjects, must guide in the selection. If the superintendent has trained his teachers to teach so as to direct their pupils to the original sources of knowledge, then he should be allowed by the committee to select such school text-books as will furnish an orderly arrangement of topics, with some explanation of the manner of using them. Text-

books should be used as reference books, and not as substitutes for the objects of knowledge.

The superintendent may be required to take the general charge of buying the books and supplies, and of distributing them to the schools ; but he should not be burdened too much with such routine work as the actual buying and distributing require. In all his relations to books for the schools, let him conscientiously avoid all entangling alliances with those who make books and those who are employed to dispose of them. Lessons in language and in elementary science require a good collection of natural objects and illustrative apparatus.

CARE OF SCHOOL-HOUSES.

The comfort, convenience and health of the children require school-houses well located and properly constructed, and properly cared for by the janitors. School-houses and the care taken of them are most important means to be used in producing a good school. The site of the school building, or the nature of the ground on which it is to be built ; its location, or the character of the neighborhood in which it is to be placed ; the means of warming, ventilating and lighting with which it is to be provided ; and all those things which contribute to utility, and to that kind of beauty found in utility, should be made the subjects of careful inspection and direction by those who have adequate knowledge and experience.

SCHOOL ATTENDANCE.

The regular attendance of the children upon the exercises of the schools is a most important condition of their successful administration. To secure this condition, parents and guardians must be made aware of the vital importance of a connected and systematic course of study by their children. They must be led to understand that the early years of life should be devoted to the acquisition of a disciplinary education, such as will prepare the children for their places as members of the family and of the State ; that, if this early training is neglected, the minds of the young will pass into a condition in which the love of learning is lost, and the power of forming right mental habits has become feeble by disuse.

It belongs to the superintendent of the public schools to keep

up the school spirit in his community, so that public sentiment will send the children regularly to school.

First. This may be done by annual reports, in which the condition of the schools is described, the value of learning is made plain; and in which the importance of subjecting the minds of the young, from the first, to those regular exercises which will finally result in good physical, mental and moral habits, shall be so presented as to attract the attention of every citizen.

Second. It may be done by establishing such methods of teaching and study as are adapted to excite a love of learning, and a respect for the schools.

Third. It may be done by applying the compulsory laws of the State to every case of voluntary or wilful neglect of the advantages which the public schools offer to the children of school age.

RELATIONS OF SUPERINTENDENT TO COMMITTEE AND TEACHERS.

It is evidently the intent of the law establishing a system of special school superintendence, and the will of the people whenever they avail themselves of its provisions, that the superintendents appointed should direct all the technical affairs of the schools. They are to be the medium through which the school committees are to express their will, as well as the source from which the motives that move and direct the will are to be derived. The teachers should receive their instructions and their orders from the supervisors. It is plainly the duty of the school committee to visit the schools, and learn what they can of their condition and management; but, if they are wise men, they will reserve their criticisms until the whole Board and superintendent are together in their monthly meetings, and there they can be made the subject of an intelligent discussion. If changes are necessary, let them be made under the direction of the superintendent. This will prevent confusion, and secure unity in the management of the schools.

After the schools of a district are organized, and good teachers are employed, and the means of teaching are provided, and the children are collected, and the teachers have entered upon their work, — then all should become the object

of constant and thorough supervision. This supervision should consist, not of learned articles, written for educational journals, but seldom read; nor of labored addresses, delivered to those who think they understand them; nor of instructions sent out from the superintendent's office, — but of patient, intelligent, personal observation of what the teachers and children are actually doing in the schools. Whatever is found to be wisely done, should be approved; and whatever is capable of improvement, should be reserved for future attention. This future may be after the exercises of the school have closed, or at the monthly meeting of the teachers, when such instructions may be given as will illustrate the defects that have been observed and the changes which are to be made. These may relate to the condition of the school buildings, and the care of them by the janitors; to the style of school government; to methods of teaching; to plans of study and recitation; to attendance of the children; to their relations with one another and with their teacher; and to all those things which affect physical health or contribute to the formation of intellectual and moral character.

The spirit in which these instructions are given is important. It should be as free as possible from all appearance of unfriendly criticism. The instructions should be presented in accordance with the objective method of teaching, and they should be received as advice or suggestions, and followed as though they were original in the minds of those to whom they are given.

The superintendent should be a model man. His conduct as an educator and a citizen should exhibit good sense, and ability to control himself in all the relations of his social and official life. In his official conduct he should be guided by principles made certain and definite to his mind by experience. He should understand the conditions of physical health, that he may give intelligent directions in the construction and care of school buildings, and in the formation by children of good physical habits. He should understand the ends and methods of intellectual education, that he may direct those under his supervision to the use of the right means and the right methods in all their school exercises. And, what is most important, he should be familiar with the relations that physical health and a right method of thinking hold to the cultivation of the virtues, that

he may inspire the teachers with confidence in the existence of a sound intellect in a sound body as the foundation of good morals.

If a superintendent of the public schools has the ability and devotion necessary to the intelligent and conscientious discharge of his peculiar duties, authority should be delegated to him by the school committee to do all those things included in the idea of school supervision, subject always to the approval of those whose agent he is; and then he should be made personally responsible for the results produced.

COURSE OF STUDIES FOR GRAMMAR SCHOOLS.

KNOWLEDGE AND INFORMATION.

We may derive a knowledge of objects and subjects only that are or have been in the presence of our minds.

We may derive information of these things through various forms of description of them, though the things themselves have never been the direct objects of our thoughts.

The amount and kind of knowledge a mind possesses limits the kind and amount of information it is capable of receiving.

DEFINITION.

A course of studies is a collection and systematic arrangement of subjects of knowledge and information. A true course is such a collection and arrangement of subjects as are adapted to occasion necessary knowledge and information, and the right development of the mind. Necessary knowledge and information mean such as are fitted to occasion that sort of mental activity which produces the best mental development.

From the definition it appears that three ends may be secured by pursuing a well-constructed course of studies. The first of these ends is knowledge, — if the mind is brought in contact with its objects. The second is information, — if the mind already has knowledge enough to comprehend it. The third end is a development of the faculties, — if they are excited to a natural and vigorous activity in the pursuit of knowledge and information.

The first end can be attained only by the direct study of things to be known. The second may be accomplished by conversation, by formal lectures, by illustrations and by the use of books. The third end, and the ultimate one, must be secured through those mental exercises which produce a facility in acting.

In making a collection of subjects to be used as the occasions of knowledge and information, we may be directed by two or three considerations. It is important that we keep in mind the fact that knowledge and information are subordinate ends ; that

a right development of the mind, or a good character, such as is implied in the possession of good intellectual and moral habits, is an ultimate end; that good habits are formed by the right exertion of power in acquiring what has been called necessary knowledge and information; and that the kind of power exerted in study is determined by the subjects to which the attention of the mind is directed.

In our system of public schools there are three grades of knowledge to be acquired, three grades of activity to be exerted in acquiring the knowledge, and three grades of mental development to be produced by the activity exerted. The grades of knowledge are: —

First, a knowledge of the qualities or attributes of whatever may be the objects of our thoughts, and of the characteristics or conditions of these objects. Form, color, number and size, are examples of qualities or attributes. Place, motion and rest, are examples of characteristics or conditions. The second grade of knowledge is of objects possessing these qualities and characteristics, and of the relations which they hold to one another; as a knowledge of plants having certain forms, colors and other qualities, by which they are known, or as having certain places where they grow, or certain times and modes of growth and other characteristics which distinguish them from one another. The second grade of knowledge has also for its object the relations that things bear to one another, as similar or different in their qualities or characteristics. The third grade of knowledge, and the one suggested by the other two, is of classes of things, the individual members of which have been found by observation and comparison to have qualities and characteristics in common with one another.

The first grade of knowledge is the peculiar object of pursuit in the primary school, and distinguishes that grade of school from all other grades. The second grade of knowledge (a knowledge of things made up of their qualities, and a knowledge of their relations) is the peculiar object of pursuit in the grammar school, and it sets off this grade from other schools. A knowledge of general truth, of classes of objects of thought, and of causes, is scientific in its character, and may be communicated in the high or secondary school.

If we now turn our attention to the different modes or grades

of activity exerted in pursuing the different grades of knowledge in the different schools, we shall learn that primary instruction occasions the exercise of the intuitive faculty in forming ideas, of the observing powers in learning of the qualities and characteristics of those things that can be presented to the senses, and of the representative powers in reproducing past mental states.

Grammar-school instruction should furnish the true occasions for the activity of the intuitive power ; of the powers of observation ; of the representative powers ; memory and imagination ; and of the faculty of comparison, by which the differences and resemblances of things become known.

In the secondary schools is found the opportunity for the true exercise of the powers of generalization and reasoning in arranging objects of thought in great divisions, and in analyzing general propositions for the particular propositions contained in them.

There is an elementary generalization and an elementary reasoning which differ essentially from these scientific acts called by the same name. A class formed by the elementary pupil contains simply as many individual things as he has actually observed. A scientific class is a combination of common qualities which the mind has affirmed of all objects possessing them.

Elementary reasoning consists in referring each individual object to the elementary class to which it may belong. Scientific reasoning is the process of analyzing general propositions or truths to find the particular propositions or truths contained in them. The scientific acts and products just defined are developments of the elementary acts and products, but should not be confused with them. It is quite necessary to keep the distinction in mind, that elementary instruction may not be corrupted by the improper mingling of scientific instruction with it.

The grades of development in the different schools should correspond to the different grades of activity to which reference has been made. The mind should be trained to form ideas by means of object lessons on the qualities and attributes of things ; to observe by means of lessons on objects ; to perform acts of comparison by the study of the relations of objects of thought ;

to classify these objects by thinking common qualities of those that resemble one another; and to reason by analyzing general truths for the particular truths contained in them.

As the human intellect inherits a perfect constitution, the changes that may be wrought in it must be produced by development. It is quite necessary, therefore, that every educator should understand in what an orderly development of the intellect consists, and what are the causes and occasions of such a development. There is no other guide to the construction and application of a course of studies. With a clear understanding of the order of activity which the intellect follows in developing its powers, we may construct a course of studies that shall present right occasions for this activity.

From what has been said, we may safely infer that a true course for a grammar school will be a development of a true primary course. In accordance with this idea, it will be seen that the grammar course should not contain new subjects of study, but rather require a more special and developed study of what has already been brought before the mind. It may be well first to name the different general subjects of the grammar course.

GENERAL SUBJECTS.

The study of the qualities and attributes of objects of thought in the primary school will prepare the pupil as he enters the grammar school to take up a systematic study of plants, minerals and animals, for those marks in these things by which they will be classified in the future scientific study peculiar to the high school.

Attention may also be directed to the uses of the things presented, and to those changes in things, called chemical changes, by which their identity is affected, and to those changes that do not affect their identity, called physical changes. When two substances are made to unite so as to form a third substance unlike either of the other two, there is a chemical change; when a power is used to move a weight, a physical change is produced. The pupil in the grammar school may be taught to observe the changes, and thus obtain a knowledge of the elements of chemistry and physics. The study of form will develop into the study of the elements of geometry. A knowl-

edge of numbers and of the simple combinations of numbers will lead to an application of the knowledge in performing arithmetical problems, first with integral, then with fractional numbers, common and decimal. The mind of the learner will now be prepared to observe intelligently geographical objects, and, directed by information received from the teacher or derived from books, to imagine where on the earth these objects are located.

Language, in its primary sense, is a faculty of the mind by whose activity the ideas and thoughts we form are associated with their proper signs. Therefore the cultivation of language should keep pace with the acquisition of ideas. In its secondary sense, language is a system of signs, by the skilful use of which ideas and thoughts may be expressed. The right exercise of the powers of observation and comparison will furnish constant occasion for an intelligent use of oral and written speech, and for expressions made by moulded forms, and by drawing. The practical use of language acquired under the direction of the teacher, and always subject to his judicious criticism, will develop in the high school into a study for a knowledge of the principles and rules in accordance with which words are constructed into sentences, or for a knowledge of the grammar of the language. Exercises in the construction of words into sentences will naturally turn attention to their use, as a means of expressing the various mental states which the mind is led to form as it thinks, feels and chooses, or to the rhetoric of the language. The knowledge that has rhetoric for its object will include a knowledge of figures of speech and the properties of style.

A careful attention in the primary and grammar schools to the employment of language as a fact, and in the high school to the principles that control the structure and use of the language, will develop into an intelligent study of literature. As music, modelling in clay and drawing, are forms of expression, language, both as a faculty and as a system of signs, may also be cultivated by the use of these forms. Drawing and modelling are not only important means of expressing a certain class of ideas, but they are also important means of increasing and rendering more accurate the activity of the observing powers, by that intense attention which will be produced if a representation of

objects in drawing is required after they are removed beyond the reach of the senses. Music and drawing are important means to be used in cultivating the taste.

The facts relating to the growth of the people of the United States, or elementary history of the United States, may be made a special topic, under the more general one of elementary geography. The elements of the civil polity of the country may be made a subordinate topic, under elements of history.

The care of the body will introduce such physical exercises, and such training to good physical habits, as will best promote physical development and physical health.

It will be seen, on careful examination, that this development of the grammar-school studies from those of the primary course, consists for the most part in passing from the observation of the qualities, or attributes of things and their characteristics, to the study of the things themselves as possessing these qualities and characteristics. There should be, of course, a development in the use of different forms of expression, corresponding to the development of the knowledge to be described, and a development in the use of the faculties corresponding to the development in knowledge and language.

A course of studies has been defined to be a collection and systematic arrangement of subjects of knowledge and information. Such a collection for a grammar course has been made from a development of the primary topics. Following out the principle of making each higher course a development of the course below it, the high-school studies would be developed from those used in the grammar school. It now remains to make a systematic arrangement of the collection of studies that has been made. The principles that should govern the arrangement are to be derived from two sources : —

First. From the laws of the mind that control its activity in passing from one subject of thought to one of another kind, or to a developed phase of one of the same kind.

Second. The principles of arrangement are to be derived from the relations that one kind of knowledge as a condition bears to another as conditioned upon it.

A knowledge of these principles would suggest the following order of grammar studies : —

ORDER OF THE COURSE.

I. — Objects of Knowledge.

Elementary study of	$\left\{ \begin{array}{l} \text{minerals,} \\ \text{plants,} \\ \text{animals} \end{array} \right\}$	$\left\{ \begin{array}{l} \text{elementary physiology, and hygiene of the} \\ \text{human animal.} \end{array} \right\}$
Elementary	$\left\{ \begin{array}{l} \text{chemistry} \\ \text{physics} \end{array} \right\}$	$\left\{ \begin{array}{l} \text{simple illustrative apparatus, made by class.} \end{array} \right\}$
Elementary knowledge of	$\left\{ \begin{array}{l} \text{numbers.} \\ \text{geometry.} \\ \text{geographical objects.} \\ \text{history of the United States; an element of geography.} \\ \text{civil polity; an element of history.} \\ \text{map drawing, with geography and history.} \end{array} \right\}$	

2. — Language Studies.

Oral and written speech.

Moulded forms.

Industrial drawing.

Music.

Reading, spelling, penmanship.

General exercises.

Physical training throughout the course.

Morals by example and precept.

Good manners in connection with morals, also by example, as well as by precept.

Both morals and manners should receive direct attention throughout the course.

It is all-important that the topics of the grammar course should be presented to the pupil's mind in accordance with the true method of teaching. We have found that the laws of the mind which control it in the acquisition of knowledge, in obtaining information, and in developing its faculties, require this to be done. It must not be forgotten that the mind is developing itself as it passes from one grade of study to another, and that its form of activity and the character of its knowledge pass through a corresponding development. If the analytic-objective method of teaching and study is employed in presenting objects of thought, and in the order suggested in the arrangement of the course of studies, there will be likely to

follow that independent, orderly activity which will result in a right development of the faculties.

If the principles upon which the grammar course of studies has been founded exist in the constitution of every human mind, then it will seem to be true that the course itself, in its enumeration of subjects and in the order of their arrangement, should be the one used in every grammar school. Unity in these things is desirable, not only because unity in results requires it, but because the largest and truest progress can be secured in no other way. There should be unity also in the method of teaching employed, if there are such things as laws of the mind which control it in the acquisition of knowledge and in the development of its power.

This unity in the course of studies and in the method of teaching, may seem to the superficial observer to reduce the school to the limitations of a machine, which, in its operations, will be likely to crush out all individuality. A more deliberate consideration of the subject will show that the particular effect produced on the mind by pursuing a course of studies, will depend on those mental characteristics which naturally distinguish individual pupils from one another. It will be found, therefore, that, although every member of a class is required to pursue the same studies in accordance with the same method, he will still remain an individual, developed in accordance with his peculiar nature.

An attempt has been made in this paper to find some principles upon which there can be founded philosophical distinctions in the three established grades of our public schools, by means of which these grades can be set apart from one another. An effort has also been made to show that, in passing from one grade to another, there should be a development in the course of studies pursued, corresponding to the development of the faculties of the mind, and of the mental activity exerted, and of the knowledge acquired. From these considerations a course of studies for the grammar schools has been constructed.

If this attempt has been to any considerable degree successful, it will, at least, prepare the way for such a discussion of this important subject as to lead to some common agreement, a result that will add harmony and strength and success to our public-school work.

PRINCIPLES THAT DIRECT IN COLLECTING AND ARRANGING
ELEMENTARY COURSES OF STUDY.

The principles that direct in collecting and arranging the special topics under each general topic of the grammar course may be derived : —

First. From a knowledge of the facts that will be used in the scientific study of that topic. This knowledge will direct the teacher in determining the kind of facts which shall be presented in the special course. The objects of study are classified along through the series from their branches to their species, by means of the distinguishing marks which they possess. The teacher must know the means to be used in referring things to their proper divisions, that he may know what to teach in his elementary courses of instruction, and how to make a proper collection of elementary topics.

Second. The principles that control the arrangement of elementary subjects are found in the order which has been established, of classification from branches to species. The distinguishing marks which separate individual objects of thought into branches, should be arranged first in order in the course, and taught first in the elementary school. The qualities that separate branches into classes should follow next in order, and so on through the whole order of classification.

If these principles are observed, the teacher will have a philosophical plan of presenting elementary instruction, and will be able to lead his pupils to acquire elementary knowledge in an orderly manner, for future scientific study.

NORMAL SCHOOLS.

The normal schools of the Commonwealth were established to train those who intend to teach in the public schools, in the philosophy and art of teaching, and to direct them in the study of the history of education. This training, from the nature of the case, must relate to the general principles upon which all methods must depend, and to a true method in accordance with which the principles should be applied. In so far as such training and study are concerned, all normal schools for the professional education of teachers must do the same work.

Experience has proved that the principles of teaching cannot be intelligently presented except in connection with their application in teaching the various branches of learning enumerated in courses of studies to be taught; neither can the history of teaching be pursued with any practical results, unless there is already in the mind a knowledge of principles by which the nature and value of various methods may be comprehended and measured. The relations that elementary and scientific courses of instruction bear to each other are such as to require a thorough knowledge of the principles and methods of both, that either may be conducted so as to fit the other, or secure the ends peculiar to itself.

The organization of every normal school should therefore include a department for instruction in the philosophy and methods of teaching; a department for the application of principles to the various branches of learning to be pursued in the public schools; and a department for training in the art of teaching, for the purpose of cultivating skill, and for securing the advantages of experience. Every normal school should be supplied with an abundant means of teaching, arranged in an orderly manner, and with a practice school containing all grades of school children, from the kindergarten to the grammar grade.

The normal pupils themselves may fill the place of the high-school grade. The time has come when the public school teachers of all grades in the Commonwealth, primary teachers as well as teachers of the secondary schools, should have both a liberal and a professional education before they are put in charge of the public schools. The State must depend upon its

normal schools for its school superintendents, as well as for its school teachers. It would be well if special exercises could be given in one or more of the normal schools, with special reference to the duties peculiar to school supervision.

The new normal school buildings now in progress of construction in Westfield, Framingham and Bridgewater, are especially adapted to furnish opportunities for complete courses of normal instruction. The normal schools of the State are worthy of high commendation for the constant progress in their own work which they have made since they were first established, and for the great reformation they have produced in the administration of our public schools. They have hitherto suffered from limitations caused by an inadequate teaching force, and especially by the too low standard of scholarship they have found it necessary to accept in admission to their classes. An enlightened public sentiment, and an increased demand for skilled teaching, are gradually removing these limitations, and are giving to the normal schools a fair chance for successful work.

The following are the statistics of the normal schools for the year beginning September, 1888, and closing June, 1889 : —

	FOR THE YEAR.	
	Number of students.	Number of graduates.
Bridgewater,	260	69
Framingham,	187	32
Salem,	292	65
Westfield,	168	39
Worcester,	245	40
Total,	1,152	245
Normal Art School,	200	
Number receiving certificates,		73
Number receiving diplomas : —		
A, B and D classes,	7	
A and C classes,	5	
Public school classes,	14	
		26

TRUANT SCHOOLS.

The laws relating to truancy require every town to make all needful provision for the confinement and instruction of truant children. A proper compliance with the law requires provisions for a good home for the children, a good school, and the means of training the children to some industrial occupation. As the expense of making such provisions would impose an unnecessary burden upon the towns, acting individually, they may by petition transfer to the counties the duties and responsibilities of establishing truant schools. This has been done in four counties (Hampden, Berkshire, Hampshire and Norfolk). When similar provision has been made in all the counties of the State, the towns will have suitable places for the right training of that unfortunate class of young persons, who, if left to themselves, will be quite sure to grow up in ignorance and vice. It should be the policy of the different municipalities of the Commonwealth to make ample provision for the care and education of all neglected children. The well-being of these young persons depends on such care, and the good order of society without it cannot be preserved. The truant laws should be so amended as to provide for their faithful execution.

THE ELEMENTS OF PHYSICAL SCIENCE.

Elementary knowledge is a knowledge of facts; scientific knowledge is of classes and of causes. Scientific knowledge holds the relation of dependence upon elementary knowledge. The mind is made conscious of physical facts through the activity of the powers of observation. These powers are the first to be cultivated, and are trained by a proper exercise on physical things. The proper place for such exercise to begin is in the primary school, to be continued through all the grades, whenever new knowledge of facts relating to things is required. Since a knowledge of facts is necessary to all scientific knowledge, and the right training of the observing powers is necessary to an accurate knowledge of physical facts, the scientific teachers of the country are turning their attention to the introduction, in the elementary schools, of a systematic course in what is called elementary science. The method of teaching is objective, and

is directed by a knowledge of what will be required in scientific study. The end to be secured is most important, as it implies a training of the observing faculty, and the possession of a reliable knowledge of facts.

PHYSICAL TRAINING.

The attention of the school authorities and teachers of the Commonwealth is invited to the new movements in favor of a more philosophical and thorough system of physical training in the schools. The relations of physical health to human happiness and success in all the activities of life are such as to make the right development of the body a most important end to be secured. Information that will direct the teachers in the study of this subject may be found in the report of the papers and discussions of the conference held in Boston in November, 1889.

THE STATE AND THE SCHOOLS.

In a free State like our own, the people that constitute the State act together as a community of persons, governed by self-imposed rules. A State thus constituted becomes a person, with the attributes of intelligence and will. These attributes belonging to the State considered to be a person must in their civil relations to individuals be supreme in wisdom and authority. In its right to exercise supreme civil power is found the sovereignty of the State. The object of the State is the protection and development of the people as citizens and as individuals, in so far as their relations to the community are concerned. The true idea of the State, therefore, is that of a moral person, endowed with supreme civil power, to be exercised in protecting the people in the enjoyment of the objects of their natural rights, and in establishing those institutions necessary for their development as citizens and as individuals preparing for citizenship.

The right of the State to exist is inseparable from its sovereignty, and this right must be higher than any other civil right. As protection and the social development of the people can be secured in no other way than through the institutions of the State, the existence of the State becomes a necessity. It follows, therefore, that the State as a governing power must care-

fully protect its own life, that the objects for which it exists may be secured. Reason and experience both testify to the important fact that it is impossible for a free State to preserve its own existence or perform its functions, unless the people that compose it are made intelligent, and are trained to form those states of mind which constitute the true sources of social unity. There must be included in these mental states a controlling sense of justice, or a disposition to render to another that which is due. Such an education of the people requires the use of free institutions with common modes of development, made universal in their application by the support and control of the State. In no other way can schools for the people be established and permanently supported, or the character of the education received be made to harmonize with the spirit of the constitution of the State, or the attendance upon the schools be made universal and regular.

Institutions depending on the will and resources of individuals have a limited and ever-changing life; while those established by the State may be immortal, and change only as they make progress towards perfection. The instruction communicated in the former may confuse the ideas of the learner concerning the sovereignty of the State; that received in the latter, being directed by the State, will train him into an intelligent and quiet subjection to supreme civil power. The one will have a tendency to set off the people in classes; the other, by ignoring all distinctions of sect or party, or any of the accidental conditions of life, and by subjecting all to a common development, will establish that spirit of unity which is the only force which can bind the parts of an organism like a civil State into one whole.

In a democratic State, the free public school, established and controlled by the government, with provisions requiring the attendance of the school population upon its exercises, is necessary to the continued existence of the State, as it is the only institution adapted to produce a common development of the people. When any considerable portion of the people refuses or neglects to give its support to such an institution, or to become subject to its educating influences, then the State has begun to resolve itself into fragments, and to enter upon a process of decay.

It is because there is some knowledge which all should acquire, and some discipline which all should receive, that common schools, and compulsory laws requiring their support and their use, are either just or possible.

The common ends to be attained in the public schools are :
1. A training of the mind to think so as to discover the truth. This may be accomplished by the pursuit of a true course of studies, in accordance with a true method. 2. A training of the mind to consider the truth to have a higher value than any other mental product. This may be accomplished by a thoughtful comparison of truth with error, and by leading the learner to experience the good of the one and the evil of the other. 3. A training of the mind to choose the highest good. This end is accomplished by accomplishing the other two, and by introducing occasions for the exercise of the highest principle of action,—a sense of duty. Such training the State should provide for its people, and should insist upon their accepting the provisions.

While these three ends do not necessarily include the acquisition of any sort of technical skill, nor instruction in any special form of religious doctrine or worship, concerning which the State has no right to give any instruction nor exercise any control, they do include a preparation of the mind to enter intelligently upon the practical affairs of life, and to examine thoughtfully and conscientiously the doctrines and forms of belief that should regulate the spiritual life ; and they include also a preparation for good citizenship in a free nation.

To train the intellect to think by the use of the method that will put it in possession of useful knowledge ; to develop the sensibilities, so that, in the pleasures and pain they feel, motives for good conduct will be found ; and to cultivate to choose that which the judgment and the conscience approve, — are ends infinitely higher than any special ends which the public schools will ever find it possible to attain. “ But, while the administration of such a system of education may be referred to the Commonwealth, its institution is of national importance and of national obligation ; and, in defect of the Commonwealth, its establishment and support should proceed from the nation.”

J. W. DICKINSON.

FINANCIAL STATEMENT.

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.

Dr.

APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS.

Cr.

1889.		1889.	Appropriation, chapter 9, Acts of 1889,	\$73,039 50
Bridgewater Normal School :—				
Salary of principal, . . .	\$2,800 00			
Salaries of assistants, . . .	11,680 15			
Janitor service, . . .	430 00			
Watchmen, . . .	530 25			
Repairs, . . .	403 54			
Printing, . . .	96 00			
Fuel, . . .	465 50			
Advertising, . . .	99 60			
Apparatus and chemicals, . . .	153 32			
School of Observation, . . .	361 64			
		\$17,020 00		
Framingham Normal School :—				
Salary of principal, . . .	\$2,600 00			
Salaries of assistants, . . .	9,887 08			
Janitor service, . . .	771 00			
Repairs, . . .	406 71			
Fuel, . . .	303 50			
Printing, . . .	161 70			
Apparatus, . . .	14 68			
Advertising, . . .	94 00			
Watchman, . . .	50 00			
		14,288 67		
Salem Normal School :—				
Salary of principal, . . .	\$3,000 00			
Salaries of assistants, . . .	9,525 00			
Janitor service, . . .	600 00			
Repairs, . . .	623 77			

Water,	49 50			
Fuel,	498 00			
Printing,	66 00			
Typewriter,	80 00			
Advertising,	47 23			
		14,489 50		
Westfield Normal School:—				
Salary of principal,	\$2,800 00			
Salaries of assistants,	7,699 88			
Janitor service,	499 92			
Repairs,	117 02			
Watchmen,	449 47			
Stationery,	126 81			
Apparatus,	667 00			
Gas,	55 58			
Printing,	884 71			
Fuel,	234 00			
Advertising,	21 05			
Water,	30 00			
Books,	61 29			
Binding,	60 28			
Semi-centennial address,	40 00			
		13,747 01		
Worcester Normal School:—				
Salary of principal,	\$2,800 00			
Salaries of assistants,	7,449 68			
Janitor service,	624 00			
Repairs,	669 39			
Fuel,	474 60			
Stationery,	242 11			
	\$12,259 78	\$59,545 18		
<i>Amounts carried forward,</i>			<i>Amount carried forward,</i>	\$73,039 50

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

Dr.	APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — <i>Concluded.</i>					Cr.
1889.	<i>Amounts brought forward, .</i>	\$12,259 78	\$59,545 18	1889.	<i>Amount brought forward, .</i>	\$73,039 50
	Worcester Normal School—Con.					
	Binding,	70 35				
	Printing,	355 33				
	Ice,	66 75				
	Telephone,	54 17				
	Water,	24 74				
	Apparatus,	47 51				
	Music,	77 83				
	Advertising,	41 35				
			12,997 81			
			496 51			
Dec. 31,	Balance unexpended, . . . . .	. . . . .	\$73,039 50			\$73,039 50

APPROPRIATION FOR NORMAL ART SCHOOL.					
1889.			1889.	Appropriated by chapter 9, Acts of 1889,	\$16,000 00
	Salary of principal,	•	\$2,800 00		
	Salaries of assistants,	•	11,240 26		
	Janitor service,	•	700 02		
	Repairs,	•	462 13		
	Fuel,	•	636 50		
	Gas,	•	43 68		
	Water,	•	39 20		
	Advertising,	•	16 00		
			\$15,937 79		
			62 21		
			\$16,000 00		
Dec. 31,	Balance unexpended,	•			\$16,000 00

APPROPRIATION FOR AID TO NORMAL PUPILS.

1889.	Amount paid : —	1889.		Appropriated by chapter 9, Acts of 1889,	\$4,000 00
June 19,	Bridgewater school,	\$622 96			
	Framingham school,	131 14			
	Salem school,	426 23			
	Westfield school,	704 92			
	Worcester school,	114 75			
			\$2,000 00		
			2,000 00		
Dec. 31,	Balance unexpended,		\$4,000 00		\$4,000 00

APPROPRIATION FOR AGENTS OF THE BOARD.

1889.		1889.		Appropriated by chapter 9, Acts of 1889, Appropriated by chapter 472, Acts of 1889,	\$13,750 00 1,000 00
	George A. Walton, salary,	\$2,499 99			
	George A. Walton, expenses,	434 92			
	George H. Martin, salary,	2,499 97			
	George H. Martin, expenses,	410 13			
	John T. Prince, salary, 3 mos.,	883 32			
	John T. Prince, expenses,	190 18			
	A. W. Edson, salary,	2,500 00			
	A. W. Edson, expenses,	410 69			
	G. T. Fletcher, salary,	2,500 01			
	G. T. Fletcher, expenses,	437 94			
	Henry T. Bailey, salary,	1,500 00			
	Henry T. Bailey, expenses,	386 79			
			\$14,603 94		
			146 06		
Dec. 31,	Balance unexpended,		\$14,750 00		\$14,750 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONCLUDED.

Dr.

APPROPRIATION FOR TEACHERS' INSTITUTES.

Cr.

1889.		1889.	Appropriated by chapter 9, Acts of 1889,	\$2,000 00
	Paid for instructors and expenses of institutes at Adams, Franklin, Gardner, Georgetown, Grafton, Greenfield, Huntington, Kingston, Mattapoisett, Monson, New Salem, Newton, Easton, Norwood, Peabody, Quincy, Rehoboth, Rowe, Acetown, Yarmouth, Templeton and Wilmington,	\$1,370 50 629 50		
Dec. 31,	Balance unexpended,	\$2,000 00		\$2,000 00

APPROPRIATION FOR INCIDENTAL EXPENSES OF THE BOARD.

1889.		1889.	Appropriated by chapter 9, Acts of 1889,	\$1,200 00
	School registers and printing, Messenger and expressage, Stationery and postage, Preparation of statistics, Telegrams,	\$471 47 330 43 264 66 125 00 8 31		
Dec. 31,	Balance unexpended,	\$1,199 87 13		\$1,200 00

APPROPRIATION FOR TRAVELLING EXPENSES OF MEMBERS OF THE BOARD.

1889.	Amounts paid, as follows : —	\$11 85	1889.	Appropriated by chapter 9, Acts of 1889,	\$400 00
May 2,	Kate Gannett Wells, . . .	18 65			
July 8,	Kate Gannett Wells, . . .	26 32			
Nov. 21,	Kate Gannett Wells, . . .	134 41			
Dec. 7,	M. B. Whitney, . . .	13 63			
16,	H. E. Scudder, . . .	43 50			
21,	E. B. Stoddard, . . .	15 10			
24,	A. A. Miner, . . .	99 33			
31,	A. P. Stone, . . .				
	Balance unexpended, . . .				

APPENDIXES.

A.

REPORT OF GEORGE A. WALTON,

AGENT OF THE BOARD.

REPORT.

To the Board of Education.

My time as agent of the Board for the year ending Dec. 31, 1889, was principally occupied with school inspection, institute work and district supervision. The month of December was spent in the office of the secretary of the Board.

INSPECTION.

This extended to four hundred and forty-six schools in fifty-three towns. Of these, nine were in Barnstable County, twenty-eight in Middlesex, and sixteen in other counties. In twenty-nine towns the inspection embraced nearly all the schools. In each a judgment was formed of its efficiency in regard to the appliances, external and internal, for teaching, and to the methods and results of the instruction. Suggestions were made to the teachers and school officers in personal interviews and meetings called for the purpose. Matters of general educational interest were, as heretofore, discussed with the people at evening meetings. The courtesies extended me in all the towns show the readiness with which suggestions are welcomed, and the good spirit of all the people towards the schools.

BARNSTABLE COUNTY.

A little more than one year ago, a district was designated for my field of inspection which included the schools of Barnstable County. The towns of this county number fifteen; the schools, one hundred and sixty. Nearly all have now been visited by an agent of the Board for a second time in four years,—at the beginning of this period by Mr. Martin, and recently by myself. Calls to other work have prevented my visiting two of the towns; these will be reached, but not in time for this year's report.

It is possible to state the relative condition of the schools in some particulars at the two points of time from the data

given in the earlier report. Among the hindrances to progress, this report emphasized irregularity of attendance; idleness and poor work, especially in primary classes; the frequent changes of teachers, both poor and good; the scarcity of the latter class, and the absence of a standard for testing the teachers' and the pupils' work. A few suggestions will be made regarding apparent gains and present needs in these respects.

Irregularity of Attendance.

A certain amount of absence is unavoidable; but any excess of it above ten per cent. in a whole town implies a want of vigilance on the part of parents and school officials. Yet one-half of the towns in Barnstable exceed this amount; two of them double it, and single schools reach a still higher ratio.

Every locality seems to have special causes operating to produce irregularity. One of these on the Cape is cranberry picking. The work of gathering the early fruit begins in September. As the cranberries ripen, the children, one after another, sometimes all together, leave for the bogs; paralysis seizes the schools, and dissolution ensues. This is one cause for a low average attendance in half the towns. Where there is much picking, towns are giving a protracted vacation during the fall. This necessitates the keeping of the schools through the inclement winter weather. But the children of this section belong to a hardy race, so that some schools which I visited during the severest storms of last winter had not a child absent,—a marked contrast to those visited just as cranberrying began.

To the credit of Barnstable County, it should be said that the ratio of membership to the whole number of children between five and fifteen years of age is considerably larger than in any other county of the State.

Truancy.

There is much absence which has no plausible excuse. In the lower towns are numbers of children of Portuguese parentage. They have little fondness for school, and their parents have but slight appreciation of the benefits to accrue from it to the children. Stringent measures are needed to make these children punctual and constant at school. Persuasion has little

effect when directed against ignorance and prejudice, especially when communicated in a foreign tongue. There were brought to my notice, in two different towns, boys who, though belonging to the schools, were “wandering about the streets,” a pest to their respective neighborhoods. Such go to increase the absentee class, and the criminal class as well. If ten boys in the Cape towns could be brought under arrest, a hundred more, their hangers-on, would be restrained and put on the road to good learning and good citizenship.

Barnstable should unite with other counties, as provided for in the law of 1881, and petition the county commissioners for a county truant school. This institution is greatly needed for the discipline also of a few incorrigibly disobedient children. From the reluctance on the part of the local authorities to enforce the laws for compulsory attendance, and for the arrest of truants and incorrigible children, it is evident that their effectiveness would be increased if the duty of enforcing them could be transferred to a State official.

Work in the Schools.

The severest criticism made four years ago was, that much of the school work was poor, especially that in the primary grades. Referring to the notes taken during my visits, I find just one-third of the schools marked poor or very poor, and the remainder marked fair to good. This is not far from the average marking for the rural towns of the State. In the primary schools I think an advance is making towards better methods. The young fingers are no longer idle for want of useful and interesting work to keep them busy. The black-board and slate are in almost constant requisition. Every child, so far as I observed, of eight or ten years of age, not recently brought to school, can write, and many remarkably well. The elementary reading, the language and number work, are excellent in a large number of schools. The towns complimented in the former report for their good primary work are certainly holding their own.

The Scarcity of Suitable Teachers.

This would be inferred from the poor work reported and still existing in so many schools. But neither the cause nor

the result is confined to the towns of the Cape. And here more teachers from the city training schools are being introduced year by year. Six in primary schools visited in one town were from normal or training schools. Twenty-three per cent. of all that I saw had received some special training in their art. The frequent changes of teachers occurring in nearly all the towns prevent any progressive or continuous work. No other section of the State that I have visited is so much afflicted in this regard. The experienced drift away to the populous and wealthy centres, and their places are supplied by such as the immediate market affords; often by raw recruits, and these are sometimes taken from among the children they are to teach.

The whole number of schools in the county is one hundred and sixty; these require one hundred and sixty-eight different teachers; the number actually employed during the year was two hundred and thirty-five. That is, on an average, one school in three had two different teachers. Many schools changed more than once, some twice or three times. Four towns, needing only fifty-four, employed ninety-one teachers, which is an average of three different teachers to a school within one year. It is not universally true that the excellence of the school is in the direct ratio of the tenure of the teacher's office; sometimes it is in the inverse ratio. On general principles, however, a change of teachers is attended with a loss to the school. At present there is no practicable way of preventing these frequent changes. The wages paid, as low as five dollars a week in some schools, will not command skilled teachers. The committees have not the time or the means to search them out, if they had the means to hire them. A sufficient number of teachers of the requisite skill to teach even the small schools does not anywhere exist.

With the limited supply and the sharp competition kept up in the wealthier places, it is inevitable that the rural towns will continue to be the training field for inexperience; and, till the proper remedy is applied, the children will continue to be the victims. The radical remedy would be to pass a law requiring all persons, before they attempt to teach, to fit for teaching by special training. The immediate remedy is to be found in a change in the form of school supervision.

School Supervision.

This, upon the Cape, is mainly by the school-committee plan, the worst form of which consists in apportioning the schools among the different members of the committee, and leaving each to look simply after his own allotment. This is a perpetuation of the old district system, with the name changed from prudential, to school, committee. The service is too often limited to prudential affairs, and a poor service at that. And, where the educational interests are supervised, it is with such differences of methods and results that there is no unity of plan in the work of the schools as a whole; no standard exists, to be reached by either teacher or pupils; promotions are made without reference to knowledge or culture, so far as any critical test is concerned. The grading and the general efficiency of the schools are largely sacrificed under this plan.

In several of the towns the supervision is committed to one member of the board, or to an outside person whom it may appoint. The advantages of this plan are manifest in the towns where it exists. The adoption of the plan is a recognition of the principle of employing one person for this important duty, and bestowing upon him powers commensurate with his responsibilities. The defect of the plan is, that the person is not usually a skilled agent. The work of teaching is a specialty; it requires for its supervision a specialist, an expert in education.

Falmouth alone, of the Cape towns, employs such an official to be the executive of the school committee. A superintendent spends all his time in her sixteen schools; reports their condition and needs to the committee; discusses plans for their improvement; and, having learned their wishes, proceeds to carry them into execution. The plan is approving itself to the people, through the increased efficiency of the schools.

The town of Barnstable, with her twenty-four schools, would do well to follow this example. Outside of these two towns, the remainder of the county could take advantage of the Act of 1888, which proffers aid to the less wealthy towns to enable them to secure for themselves this form of supervision, — a form which is almost universally adopted by the large towns and cities throughout the State and the whole country.

The provisions of this law are as follows :—

1. All towns not exceeding two and a half millions of valuation may receive the benefits of the law.

2. The number of schools under one superintendent must not exceed fifty, nor be less than thirty.

3. The towns forming the union must unitedly raise seven hundred and fifty dollars to pay in part the salary of the superintendent.

4. The above conditions being complied with, and a superintendent having been employed for one year, the State will pay to the superintendent district a thousand dollars, one-half of which is to supplement the money raised by the towns for the salary of the superintendent, the other half is to go to increase the pay of the teachers.

To see how the law works, I have arranged the towns of Barnstable County into groups, such that all but one would have a number of schools within the prescribed limits. This group could be extended to include a small town outside the county.

Grouping of Towns.

DISTRICT.	TOWNS.	Number of Schools.
I.,	Provincetown,	17
	Truro,	6
	Wellfleet,	8
		—31
II.,	Orleans,	6
	Chatham,	11
	Harwich,	15
		—32
III.,	Eastham,	3
	Brewster,	7
	Yarmouth,	9
	Dennis,	13
IV.,		—32
	Sandwich,	12
	Mashpee,	2
	Bourne,	11
		—25

Take, now, for example, the first group of these towns, and see what the expense to each town would be, upon the basis of the average school attendance :—

	Number of Schools.	Average Attendance.	Money to be raised by Town on Basis of Av- erage Attend- ance.	State gives for Salaries of Teachers.	Difference.	Expenses of Supervision by School Com- mittees.
Provincetown, .	17	728	\$495 91	\$330 62	\$165 29	\$350 00
Truro, . . .	6	133	90 60	60 40	30 20	100 00
Wellfleet, . .	8	240	163 49	108 98	54 51	175 00
	31	1,101	\$750 00	\$500 00	\$250 00	\$625 00

The amount which the several towns pay naturally forms the basis for the apportionment of the time of the superintendent to be given to the respective towns.

This law is a just and generous contribution from the wealthy cities and towns of the Commonwealth, which pay nearly ninety per cent. of the State tax, for the educational improvement of the rural towns through better school superintendence.

The added burden to each town is small, and the expenses of school committees are necessarily somewhat reduced because of the work done by the superintendent. The five hundred dollars given by the State to the group of towns for teachers' salaries is of great service in paying for the improved teaching that will result from skilled supervision. No town can afford to let this rare opportunity pass unimproved. This form of supervision now extends to about forty towns, and is producing good results wherever it has been tried.

In my public addresses the operation of this law was a prominent topic. It has not received the favor here which has been extended to it in other parts of the State. Some of the advantages which such an officer has over a school committee or a part-time superintendent are:—

1. He is presumed to be a skilled teacher, especially fitted to administer school affairs. Being such, he holds the relation of principal of all the schools he superintends.

2. He is presumed to have a knowledge of the history and philosophy of education; he is an observer of other schools, and a regular reader of books and periodicals relating to the science and art of teaching. He is a specialist in his line.

3. He is paid for his full time, and expected to give it all to the service of the schools; to plan for and assist the teachers and committee in the discharge of their duties.

4. His office is presumed to be as permanent as that of a bank president or the superintendent of a mill.

The usefulness of such an officer is recognized in all important industrial pursuits. Can it be less so in an interest which involves the training of our children?

Consolidation of Schools.

In the Barnstable County towns there is no gain in wealth except in two of them, nor in population except possibly in one. Economy in school affairs is felt to be a necessity. Yet most of the towns keep up a number of small schools which could be abolished without serious inconvenience, and with a slight expense for transportation. Sandwich, for example, has three of these, all receiving their pupils from small territorial limits. These schools numbered respectively eight, six and five pupils. The teachers' wages are seven and eight dollars per week, giving for the schooling of nineteen pupils eighty-eight dollars per month,—twice as much per child as the town's average, including the cost of the high school. Two-thirds of the expense of keeping these schools could be saved by uniting them in one.

Barnstable is another town that could profitably consolidate some of her schools. She is supporting six of the grammar grade in which some high-school branches are taught. She needs and can well afford a first-class high school. This she should establish at once, furnish conveyance for pupils too far away to walk, and leave the grammar schools to their legitimate work. Such a high school, with competent instructors, might be made a first-class fitting school, and become the resort of pupils from other towns on the Cape.

Consolidation is a work which would enlist the quick sympathies of tax payers and all parents, if they would give the subject the unprejudiced consideration it merits.

An account of a movement in the town of Concord, showing what can be done in the way of consolidation, is referred to under Middlesex County in this report. The movement

referred to brought into one well-graded school the children of eight mixed and two imperfectly graded schools, scattered throughout the town. The results are an average attendance better than when every child had a school at his own door; an annual admission to the high school relatively higher than that for any other high school in the State; with a constantly advancing standard for all grades of instruction.

Some of the conclusions arrived at, so far as my inspection has gone, in Barnstable County, are, that there has been a slight gain in the average attendance in four years; I heard little of local interference, a complaint made at that time; the primary work has evidently improved since then; there is an attempt to better grade the schools; a few towns have adopted detailed courses of studies, and are teaching more by topical methods; many have introduced valuable charts for teaching physiology and hygiene,—all of which things look towards better work and higher standards for teachers and pupils to reach.

It is still true, however, that the modern spirit and methods find little favor in some of the schools. The improvements made are rather superficial in kind, and tentative rather than permanent, so largely dependent are they upon the teachers. The schools as a whole need a radical uplifting, such as Norfolk County experienced ten years ago. The County Teachers' Association, the school committees, the people, should work for this; and, above all, a body of superintendents should work with energy enough to vitalize all the other forces.

MIDDLESEX COUNTY.

Since a majority of the schools of Middlesex County yet remain to be visited, a report upon this county will be deferred till a future time. Having, however, found the improvements in the town of Concord so marked since my previous visit, and the means by which they have been secured so suggestive, I append an abstract of these things, which I have taken from an account of them prepared by Mr. William L. Eaton, superintendent of schools of the town.

Ten years ago the town of Concord had in her principal village five schools, each in a separate building. Every villager had a primary school near his own door. Some attempt had been made at grading, which was attended with partial

success. In another village there were two schools under one roof. Besides these, five district schools were kept for the convenience of the outlying farming population. There were twelve schools in eleven houses, presenting a jumble of ungraded, imperfectly graded, and mixed schools, all taught by faithful teachers, many of whom had progressive ideas.

An unprejudiced examination of the schools gave little reason for present satisfaction; and, considering the untiring zeal of committees and superintendents, there was no sufficient ground for hopeful anticipation. The deficiencies were radical. The committee saw what was needed, and resolutely met the emergency. A wisely directed and vigorous agitation procured from the town an appropriation for an eight-room school-house, to be erected at the centre. This received the children from the five villages, and there resulted everything that distinguishes a good school from a poor one.

The democratic instinct of the committee moved them to aim at giving equal privileges to the five outlying district schools. As the eight-room building could not be taken to these districts, the children must be brought to the centre school. The committee represented each of the districts; from personal observation they became convinced of the advantages of the central school for all the children of the town. The people of these districts were led, by persistent labor, to share the convictions of their representatives; and, though several years were required to accomplish it, the five were eventually brought to the one.

The opposition to the closing of these schools and transporting the children to the centre was due mainly to two powerfully operating causes: first, the apprehensions of the real-estate owners; and, second, the natural disinclination of the parents to send their little children so far from home, and for so many hours. These two objections could not be met by experience, and were only overcome by patient and persistent effort. To-day the six hundred and fifty pupils of Concord are all in three houses erected in the last ten years.

A revolution in the system of instruction has taken place in this period, placing the schools in the front rank of schools of the State. Now, what has been the effect upon real estate in the districts? Many sales have been made; and the real-

estate agent sets forth as an advantageous condition, that children are taken at the door and conveyed, free of charge, to as good schools as can be found in any other town. Are the little children comfortable in severe weather, and well cared for through the day? No complaints have been made on the score of comfort, even in the severest weather. A responsible person, a teacher or another, stays at the school-house at the noon intermission.

A careful compilation of the attendance of about seventy-five children, conveyed from two to three and one-half miles, for the winter months of 1888-89, showed that their record was between one and two per cent. higher than the general average of the schools they formerly attended. Nine of these were children of the lowest primary class. Forty dollars per week is paid for transporting the children; seventy-five would be the cost of keeping up the district schools. All the parents now share equally in the improvements adopted, in better houses, better air in the rooms, new subjects of instruction, better teachers and better schools.

Respectfully submitted,

GEORGE A. WALTON.

WEST NEWTON, Dec. 31, 1889.

B.

REPORT OF GEORGE H. MARTIN,
AGENT OF THE BOARD.

REPORT.

To the Board of Education.

During this year I have visited the towns in Plymouth, Dukes and Nantucket counties, and have reported monthly on the condition of the schools in each town. Having made a similar inspection of most of these towns in 1883, and of the others, excepting Nantucket, in 1886, my observation and judgment throughout have been comparative.

During the six years which have passed since my earlier visit, there has been a general elevation of standard throughout these counties, and a corresponding improvement in means and methods. This improvement is by no means uniform in degree or kind; some towns have made much more radical changes than others, but I have found only one town which is absolutely torpid, and some have moved into the front rank among the school towns of the State.

PLYMOUTH COUNTY.

Appropriations. — Perhaps there is no surer indication of popular interest in any institution than the voluntary contributions of the people toward its support, nor is there any better measure of that interest than the amount of such contributions. Since 1883 the average amount appropriated for the schooling of each child of school age in Plymouth County has increased from \$10.96 to \$13.48. This is a gain of 18.7 per cent., while for the whole State the gain has been only 7.6 per cent. There has been a marked increase also in the percentage of taxable property appropriated to the public schools. In 1883 this was .00304; in 1889 it rose to .00331, an increase of 8.1 per cent.

Buildings. — Large additions have been made to the value of the school property. In six years new buildings have been erected costing \$101,829, and in alterations and permanent improvements the sum of \$43,340 has been spent. A considerable proportion of this amount has been expended in

Brockton, where the rapid increase in population has taxed to the utmost the wisdom and skill of the school authorities to find suitable accommodations for the children. Improvements are now in progress in that city which will cost more than fifty thousand dollars, and which are not included in the above amounts. Among the towns, Marion has made the most conspicuous change in its school property, having within a few years replaced all its old buildings by new ones which are models of taste and convenience. Middleborough has erected the finest new building in the county, at a cost of \$28,000. Whitman has just completed a large building, which will in part meet the need of the schools for more ample accommodations. Scituate has been most conservative of its old buildings and furniture.

Number of Schools. — The whole number of schools in the county has increased by 22. Most of this increase is in Brockton, and one or two of the larger manufacturing towns. Here and there an ungraded school has been divided into grammar and primary departments, and a few small schools have been discontinued, or combined with others; but in most of the towns the number of schools remains substantially unchanged. The closing of a single school-house in almost any one of these towns represents a triumph of public spirit and enlightened views of education over ignorance and prejudice, which persons unfamiliar with such localities can scarcely credit and cannot understand. An attempt by the more intelligent portion of one of the Plymouth County towns to reduce the number of schools was the occasion of a commotion in the community almost amounting to a riot. Besides the personal animosities awakened, the town spent a thousand dollars in money, the voters as much more in time in attending numerous town meetings, the work of the schools was disturbed and broken for a year, and at the end of the *melée* the number of schools remained undiminished.

Attendance. — There has been a gratifying increase, both in the number of pupils attending school and in the regularity of their attendance. While the number of children of school age has increased 711, the whole number of pupils in the schools has increased 1,420. Of this increase, 422 are more than fifteen years of age, and 368 are in the high schools. These figures

afford conclusive evidence that, in spite of the inducements offered to young people to shorten their school course for the purpose of earning money, there is a growing recognition of the value of a broader education, and an increased interest in the higher courses of study. The average attendance has increased from 88 per cent. to 91 per cent. This gain, though apparently small, represents a large amount of patient effort of teachers, committees and truant officers.

Organization. — In 22 of the 27 towns of the county there has been a more or less successful attempt to organize the schools into a system, in which the schools are related to each other as higher and lower. In the remaining 5 towns the schools are all ungraded and unrelated to each other. The organization in some of the towns is only rudimentary, — an attempt to separate the youngest from the oldest children in the same building. But so much is better than none, and makes teaching and discipline easier. In 16 of the towns the schools are related to each other by a definite course of study in print, and in the hands of the teachers as a guide in their work. Ten of these courses have been adopted since my former visit, and all the others have been revised.

Teachers. — There has been an improvement in the teaching force of the county. While the number of teachers required for the schools has increased 7.5 per cent., the number of different teachers employed during the last year is only two per cent. greater than the number in 1883, showing that less frequent changes occur. The number of male teachers has diminished. Two causes have contributed to this. Six years ago there was a considerable number of men keeping ungraded schools, for seven or eight dollars a week. With no more culture than the average mechanic, and with much less energy, they were the most incapable members of the teaching body. These have mostly disappeared.

In some of the grammar schools of the larger towns, paying from fifty to sixty dollars a month, it has been found impossible to keep capable men for any length of time. They are called for by wealthier communities as soon as they have demonstrated their ability to control and to teach. Some of the towns have felt forced to replace the men in such positions by women at the same salary. In most cases the improvement in the schools has justified the change.

While in these special cases the substitution of women has resulted in gain to the schools, and while under the present organization similar changes might profitably be made in other schools, yet I believe the highest type of school training cannot be secured without at some period in the child's development bringing him in contact with a scholarly, large-minded, manly man.

There has been a large gain in the number of trained teachers. The number who have attended normal schools has increased 38.25 per cent., and the number of graduates of such schools 32.5 per cent. The ratio of such teachers to the whole number employed has risen from 27 per cent. to 37 per cent. In forecasting the probable improvement in the school work resulting from the employment of more normally educated teachers, large allowance must be made for the fact that many of these persons are novices, and are in the rural schools only to get "experience," which will open the way for them to more lucrative positions. The comings and goings of these teachers in these schools are as frequent and sudden as the changes in a kaleidoscope, and their influence upon their schools as evanescent as a perfume. The transiency of their services is easily accounted for by referring to the average wages of female teachers in the county. This has not sensibly increased in the last six years. The latest returns give it as \$36.91 per month. The average duration of the schools was eight and four-fifths months, making the average annual income of these teachers \$324.81. This is less than the average income of young women employed in the leading industries of the county. When we consider that girls can go directly from the grammar schools into employment in which they will earn more money than if they had spent four years in a high school and two or four years more in a normal school, in order to become teachers, we cannot be surprised that the supply of competent teachers is far less than the demand. When we consider further that in the smaller towns the monthly pay of teachers and the time of employment are below the average of the county, we can understand why so many of these schools are the permanent refuge of the incompetent, or the temporary exercise ground of the more ambitious.

Supervision. — In no part of the State are school committees

more interested in their work and more conscientious in the performance of it than in Plymouth County; nor is there anywhere more readiness to receive suggestions or more willingness to follow them, than here. Indeed, I cannot recall a single town where I have not on this second visit found changes in the line of my own previous suggestions. There is greater vigilance in the care of the school premises, to conserve decency and good morals; more thought of comfort in providing furniture, drinking water, window shades, etc.; more black-board surface, more illustrative material, more reading matter. To more efficient supervision are also due the improvements which have been described: the better buildings, the increased attendance, the larger number of trained teachers, the new organization and courses of study, and the larger appropriations which have made all these possible. Something of this efficiency of the school committees may fairly be attributed to the fact that in at least ten of the towns one or more members of the committee are graduates of the Bridgewater Normal School, and have at some time been teachers.

The most important change in the county, already producing the most conspicuous results and promising the most for the future, is the employment of professional superintendents. In 1883 there was no person in the county giving all his time to school supervision. In Plymouth and Hingham were superintendents doing excellent work in that capacity, but both were employed a part of the time in high-school teaching. Now, Plymouth, Brockton and Middleborough have each a superintendent; Hingham employs one jointly with Cohasset, and receives four-fifths of his services; Bridgewater is joined with Walpole, under the law of 1888; and, under the same law, Duxbury, Marshfield and Scituate have formed a union district; Abington has employed a superintendent who has also been principal of the high school. So that, of the 379 schools of the county, 214, or 56.5 per cent., are under professional supervision. Besides these nine towns, several others have voted to employ a superintendent, but have not been able to effect a satisfactory union for the purpose.

The effects of employing a person whose whole thought and effort are devoted to making the schools better have in all these towns been most marked and gratifying. First in importance

is the new spirit which pervades the schools. The work in the hands of the same teachers seems to have taken on a new character. While it is more definite in its aim, it is also broader in its scope and more intelligent in its methods, and better adapted to secure a harmonious development of all the powers. Thoughtful interest has taken the place of idle curiosity. Much of dull routine has given way to exhilarating and stimulating mental activity.

Another marked result of the new supervision is the unity of purpose which characterizes all the schools,—the co-ordination of all parts of the system. In this the outlying schools share with the others, as they have never done under the old system. The full benefit of the abolition of the district system has never been secured by the small schools, except in towns employing a superintendent. The schools are better graded, the buildings better cared for, the books and supplies bought and distributed more economically, the teachers selected more carefully and impartially, and aided and directed more judiciously. There are fewer leaks and less wastes in the school economy; and, as Charles Francis Adams long ago declared in the case of Quincy, the people come nearer getting dollar for dollar of their school appropriations than they ever have done under the old system. But there are still leaks and wastes to which I shall revert.

Reading.—In the primary schools I have found no teachers beginning the work in reading with the a, b, c's. Most use the word method or the word and sentence method; and generally teach from the black-board with script characters. Some begin with the chart, and a few with the primer. I saw one, a man, who spent the first fifty minutes of the morning session in hearing the six youngest children in a mixed school spell and guess out their little primer lesson. This was an exceptional case.

But the general criticism may be made on the primary reading in all the unsupervised rural schools and in many of the graded schools,—it is word-reading rather than thought-reading, and the children do not *get on*. The extreme of slowness was exhibited in a school, not in Plymouth County, where the teacher, as she called a class of twenty children and handed me a primer, said, “This class has been a week and a half on

this lesson, and they can't read it yet." The work is slow because it is only word-calling. If the child has not the thought in his own mind, he lacks the first incentive to expression and so to effort.

Vicious habits in reading, habits which some pupils never overcome, are induced by a combination of three causes. The first is the practice of the teacher, in using the board and chart, of pointing to the words singly, and having them named by the pupil. The pupils learn to call this reading, and they make the later book-work like it. The second cause is the assignment of reading lessons to young children, to be studied at the desk. Nine-tenths of all the idleness which one sees in schools is of children who have a reading book open before them. I know of no more serious waste of time, no more alluring temptation to disorder, than this practice furnishes. Primary reading should be bright and sprightly. This practice makes it "a sad, mechanic exercise, like dull narcotics, — numbing." A third cause of poor reading is the lack of sufficient variety of reading matter. There are more reading books in the schools than on my previous visit, and they are better ones; but, outside of the towns employing superintendents, there is still a dearth, which continues to form an insuperable barrier to fluent reading. There are still schools where the course of study prescribes the use of a single Third Reader for two years, with occasional excursions into one or two books called supplementary. Observation shows that pupils having no reading matter at home, and so confined to this scanty diet, rarely become even tolerable readers; while the children who out of school are reading many periodicals and books, would not be poorer readers if they should omit the school reading exercise altogether.

Mr. Matthew Arnold, in the annual reports of his inspection of English schools, repeatedly criticised the work as not being "formative." While much of it was useful and necessary, there was little in it to "form" the mind and promote intelligence and culture. Many of our own schools might justly be criticised for the same deficiency. The literary element is conspicuously absent. The reading books for the older pupils are poorly adapted to form correct taste or to train the judgment. While "Robinson Crusoe," and "Little Women," and

“Alice in Wonderland,” and “Water Babies,” read as wholes, might have much value from the culture view-point, excerpts from them at best serve only as reading exercises. All the elocutionary results now secured might be attained in a fraction of the time now spent, if more energy were put into the exercises; and the remaining time could be profitably used in studying some choice specimens of English and American literature. The literature is abundant, and publishers are ready to furnish it in an inexpensive form. It rests with the committees and teachers to make the change.

Language. — The work in language is in a much more satisfactory condition than in previous years. Taking the county through, I should estimate that there had been a gain of two years with average pupils. The practice of beginning writing in the first year is almost universal. So is written spelling; and the mechanical part of composition — spelling, using capitals and punctuating — is done better in many schools at the end of the fourth year than it was formerly at the end of the sixth or seventh year. I have found few schools in which there was not some training in letter writing, and the practice of composition in connection with geography and history prevails in all the best schools. Of course this work is in no sense literary. Even in the high schools, the lack of culture to which I have alluded prevents most of the pupils from attaining much success in literary composition. With more effort to develop the taste in the grammar schools, through standard reading, there would come a decided gain in the co-ordinate department of written language.

Nature-study. — In the grammar schools of the larger towns the teachers are doing admirable work in geography. In this department I observe an almost entire revolution in method. But, taking the county at large, there is still much stuffing with facts learned from the books, much learning of words which are not the signs of ideas. In a majority of towns in the county there is none of the work which is so prominent in the German schools under the name of *Natur-Kunde*, — nature-knowledge. If the children in country schools are asked which way the wind is, or which way it was when it rained last, they appear dazed by the audacity of the questioner. There is need of more earnest thought as to the best

way to open the minds of the pupils to the world in which they live, but of whose activities they know so little and care so little.

The teachers who have recently been graduated from the normal schools are well equipped for this kind of work; but their stay in the country schools is usually so short that before the children have recovered from the first shock of such novel instruction, the teachers have gone, possibly to be replaced by persons who know no ways but the traditional ways.

The Plymouth County Teachers' Association has made an attempt this year to open the way to more general nature-study. Recognizing the fact that many of the teachers have had scanty preparation for the work, and that elaborate, systematic schemes of instruction serve only to awe the unskilled teacher, the association has suggested a line of work so simple that any teacher in any school can undertake it with confidence.

The following is a copy of a circular sent to every teacher in the county:—

The Plymouth County Teachers' Association, at its annual meeting in October, recommended to the teachers the following plan for introducing nature-study into the schools during the present school year. It is urged that in each school, of whatever grade, work be begun at once and continued through the year, and that early in the autumn of 1890 a brief report of what has been done be made and sent to Mr. John I. Rackliffe, Campello, Mass.

WINTER TERM.

Study of trees, native and cultivated, in the following order:—

- (a) General appearance: size; form; branching. Sketch.
- (b) Distinctive marks: bark; buds; favoring locality and soil; leaf habits (time of shedding, etc.); wood, appearance, qualities and uses.

In spring, add study of tree leaves. Sketch and press.

SPRING TERM.

Study of native plants, in order of appearance in flower:—

- (a) Common name. Make list on board.
- (b) Favoring locality and soil.
- (c) Distinguish as herb, shrub or tree; as annual or perennial.
- (d) Time of flowering.
- (e) Parts of flower, distinguish and name. Sketch.

The following suggestions are made : —

1. Study trees *with pupils* in out-of-school walks.
2. Use facts gained by observation for oral and written language training. A permanent record book for each pupil may be useful.
3. Accompany work, as far as possible, with free-hand sketching.
4. Do all the work suggested, if possible. In any case, *do something*, and note carefully the result.

I have found several teachers who have already made a successful beginning along the lines of work indicated. It is the purpose of the association to extend the work tentatively from year to year, in the hope that by and by systematic nature-study may form a recognized part of the elementary school instruction. If any considerable portion of the teachers of the county should do the work suggested by the circular, it would be more than has ever been done in any considerable part of the State.

CONSOLIDATION OF SCHOOLS.

The problems connected with the graded schools are in a fair way to be solved. Upon the solution is concentrated the thought of the best-educated and most experienced teachers, and of the most skilful superintendents, with all the aid which professional associations and professional literature can afford. We may reasonably hope that steady progress will be made in choosing the higher ends; in adapting all the means to those ends; in vitalizing all school processes, so that the schools may afford what Horace Mann so forcibly declared they should afford to every child in the Commonwealth, — “a free, straight, solid pathway, by which he could walk directly up from the ignorance of an infant to a knowledge of the primary duties of a man, and could acquire a power and an invincible will to discharge them.”

For the ungraded schools there is less to hope. Here and there a good school of this description may be found, more frequently a few good scholars may be found; but the majority of these schools are not furnishing the children with the education which the times demand. Nor can they do so. There cannot be a good school without a good teacher, and these schools cannot attract and hold good teachers. The isolation; the difficulty of finding boarding places; the smallness of the

schools, affording little stimulus to the ambitious and little scope to the enterprising; the dulness and backwardness of many of the pupils; the lack of intelligent and sympathetic interest on the part of parents; the prying and captious spirit which pervades many of the districts,—these, singly or combined, repel the very class of teachers who only could improve the schools.

It is indeed true that the instruction and training of a single child is a task worthy of the ambition of the most gifted man or woman; and that, if the child be dull or neglected, the task has in it an added tinge of heroism. Teachers have as much of the spirit of self-abnegation as other people; but it must be confessed that among them there are not enough heroes to go round. Besides, there is a choice in self-denials. Francis Xavier was as devoted among the heathen crowds as St. Simeon Stylites on his lonely pillar, and showed much more sense.

More money for higher salaries would buy better services for some of these schools; but many of them are now the most expensive luxuries which the State indulges in. In some, the cost per child is from thirty to fifty dollars a year, and many of the towns are now raising as much money as they can afford. Superintendents could make these schools better. Some of them they might even make good, but the improvement would be at an expenditure of time entirely unnecessary. For the State to give more money to the towns, under existing conditions, is to put it into a bag with holes.

More effective than any of these measures, because striking at the root of the evils, would be *consolidation* of schools. Even in the larger towns, with their only partially graded schools, there is a waste of energy by scattering it. The attempt in such towns to maintain several schools of the same grade, at no great distance from each other, means low salaries for all the teachers, and frequent changes. In one of these towns, in each of four grammar schools having male teachers, there have been five principals in the last six years. There are but nine male teachers in the county who were teaching in their present schools on my previous visit. Consolidation of schools would allow closer grading, would secure a much more effective division of labor, and would make it possible to employ a man competent enough, and to retain him long enough,

to become identified with the community, and to exert an enduring influence through the continuity of his services.

In the smaller towns, if the children were brought together into one or a few buildings, there would be gain in many directions. The school-houses would be better, and better cared for. Now, slight repairs are tediously delayed. A broken window or door-knob, a smoky stove, a leaky roof, serve as petty annoyances for weeks. Isolated houses and out-buildings frequently suffer from malicious or mischievous depredations. The care of fires and rooms is entrusted to boys, whose services are dear at any price. Consequently, the rooms are badly heated and ventilated, and they are often very untidy. Water supply is inadequate. In some towns, each school-yard contains a well; in others, the daily supply is brought in buckets from the houses of neighbors near or remote, the children spilling the water and wasting their time in equal proportion. If the schools were together, one well would supply them all; one competent janitor could attend to the heating, ventilating and cleaning, and to small repairs. Consolidation would serve economy in the provision of books, supplies and helps. The wants of a particular school in one term may not be the same for many terms again. To-day there is a class of pupils old enough to need advanced books. These pupils leave, and it may be several years before the books are needed again. But they remain in the school-house, if they are not lost. Meantime, in another school, a class has come up needing these very books, and for them new ones are bought. It is within my knowledge, that, since the employment of superintendents in some of these towns, hundreds of unused text-books have been found scattered about in the small schools.

Again, in each school may be two or three little children learning to read. A reading chart is provided for them,—one for each school. At the other extreme are two or three older pupils, who need an unabridged dictionary; and one of these is bought for each school. Had these schools been together and graded, one chart and one dictionary would have served for all. The same is true of maps.

Economy of teaching force would result from union. The qualities which fit a person to teach the youngest children are so different from those required in the instruction of the oldest,

that it is rare to find them combined in the same person; and the teachers of the ungraded schools seldom teach all the classes equally well. Were the children brought together and the schools graded, each teacher could be placed where nature has fitted her to work, and where she could work with the least waste of power.

In ten of the towns of Plymouth County the number of pupils in attendance averages less than twenty to a teacher. Were the pupils aggregated, half the number of teachers would suffice. With the increase in the size of the classes would come the added stimulus which numbers always afford, and both pupils and teachers would feel an increased interest in their work. Mental development would be more rapid, and the outcome in knowledge and power would be largely increased. Studies which are now practically ignored in the smaller towns, especially singing and drawing, could be pursued with profit, as they now are in the best graded schools.

With all the other wastes of the existing system there is waste in supervision. A large part of the time of committees and superintendents is spent in travelling from school to school. If the schools were consolidated, a superintendent could care for twice the number of towns which are now included in the union districts. By this arrangement, towns which are not now included in any district, and which never will be united under the existing system, could receive all the benefits of the more favored localities.

The consolidation of schools means building commodious school-houses, centrally located, and carrying to them the children from the more remote parts of the town. Many of these children are now walking one or two miles to school, and they are away from home during the whole day. If carried to a central school, they would be away from home no longer, and would be much less exposed in going and returning. Many children would have little further to walk to a central school than they now have to the district school which they are forced to attend.

Wherever the experiment has been judiciously tried, of uniting the small schools, it has been attended with gratifying success. The town of Concord has tried the experiment on a more generous scale, having gradually consolidated all its

schools in two buildings, — one in the central part of the town and one in West Concord. The plan was so wise and so wisely executed, and the results have been so gratifying, as to make the town a second time historic.

No new legislation is needed to make the plan practicable everywhere. The high estimate of education and the earnest purpose to furnish the best, which have helped to make our schools as good as they have been, must be looked to to adapt them to existing conditions. Enlightened public spirit may be depended on to devise ways and means to put every boy and girl of school age into a good school, under a good teacher.

Respectfully submitted,

GEO. H. MARTIN.

LYNN, Dec. 31, 1889.

C.

REPORT OF JOHN T. PRINCE,

AGENT OF THE BOARD.

THE SCHOOLS OF GERMANY.

REPORT.

To the Board of Education.

Through the courtesy of your honorable Board in granting me leave of absence, I was enabled, for several months during the years 1888 and 1889, to study by observation the educational systems and methods in various parts of Germany, a brief account of which may be of some interest to you and to others whom this report will reach.

The most casual observer cannot fail to see that there is greater uniformity of excellence in the schools of Germany than in our own; that, while here and there in our country there are schools of superior merit depending upon certain favorable circumstances, all schools alike in Germany share the advantage of the rigid government requirements for the qualifications of teachers. For the position of teacher in the so-called people's schools, candidates must pass two or three rigid examinations, and prove their fitness to teach by successful experience in the schools, before they can receive a permanent appointment. The normal school course is very severe, and includes much practice of teaching in a model school. Following the course of three or six years, is an examination by an examining board, which includes a test of actual teaching and a review of subjects studied in the normal school. If the candidate passes this examination, he is permitted to teach, but receives no permanent appointment until after a lapse of not less than two and not more than five years, when he is again examined in the theory and practice of teaching, and also in those subjects which he is expected to teach. In many parts of Germany an additional subject of one foreign language is required. The examinations of candidates for positions in the high schools are very severe; and, between the two examinations, they are obliged to have a year's actual practice under

the direction of a competent master, — generally a high school principal. Other examinations are given for teachers of special subjects, for principals of schools, for teachers of private schools, and even for teachers in private families ; for no one is allowed to teach in any capacity who has not been approved by an examining board, — a board which consists largely of teachers and professors of superior merit. The principals and many of the ordinary teachers of the high schools are granted the title of professor, and all other teachers are considered of equal rank with the lower grade instructors in the university.

Thus we see that there is on the part of the government a recognition of teaching as a profession ; and this recognition pervades all classes of society. The teacher of any school or grade ranks with his clerical, legal or medical brother. Indeed, so far as my observation goes, the teachers of Germany as a class stand higher in the estimation of the people than do members of other professions, and worthily so.

The salaries of teachers, compared with what is paid for similar service in our own country, are small ; but, when we remember that the purchasing power of money is far greater in Germany than it is here, that the salaries in all professions are low, that the tenure of office of the teacher is very strong, and that liberal government aid is given to the teacher in case of disability, and to his family in the event of his death, — we can well understand why the profession of teaching calls to it the highest talent and most profound learning which a highly civilized State can produce.

Germany, therefore, can claim the distinction of having the best schools : not because some of the schools there are better than some schools elsewhere, not because of the superiority of a few teachers, — but because she recognizes in her laws the fact that the education of youth calls for thorough preparation on the part of the teacher, and declares that no school of any kind, elementary or secondary, public or private, shall be taught by a teacher who has not such preparation.

By placing in comparison some of the features of our school system and those of Germany, we may get a clearer idea of the conditions under which the schools are maintained in that country, and possibly find some suggestions for the reform of certain conditions in our own State.

POWERS OF SCHOOL OFFICERS.

The highest or general boards of education in Germany are known under different names in the various States. In Prussia there are the provincial and governmental district boards; in Saxony, the ministry of instruction and circuit or district boards; and in all of the States there are one or more general boards, to which large powers are given, especially in respect to the internal affairs of the schools. Examiners for the examination of teachers and inspectors for the supervision of the schools are appointed by these boards, and are generally selected for their superior professional qualifications. There is a head of educational affairs in Prussia, who is in constant communication with the various boards, and who receives reports from them at stated times. There are also in the various townships local boards, which have charge chiefly of external affairs, such as care of school property, collection of fees, and, in some cases, the nomination of teachers.

This distribution of powers and responsibilities is quite different from what is made in many parts of this country. Here boards appointed by the general government frequently have but little more than advisory powers, while to the local boards is given almost unlimited control of affairs, both internal and external. The duties of examining and appointing teachers, of making courses of studies, of supervising the schools, and of dismissing teachers whenever their work is not satisfactory, all duties, in fact, which are performed in Germany only by boards consisting of learned and experienced teachers, are performed in many places of our State by persons who are actively engaged in some business of their own, and who may have had no professional training whatever.

SUPERVISION.

In the supervision of the schools, as in the teaching, there is in the two countries under consideration a difference of procedure chiefly in respect to system and uniformity. Here in Massachusetts only eighty-eight of the three hundred and fifty towns and cities have what is called skilled supervision. The other towns have no supervision except by local members of the school committee; and, even where superintendents are employed, their duties are often vague and

uncertain ; and, when they are defined in such a way as to confine the superintendent to clerical service, or to doing errands which may be done by a boy, they are of doubtful service.

These defects are not likely to exist in Germany. In the cities and in regularly laid out districts in the country there are school inspectors who are selected generally for distinguished service as teachers, to whom are given certain fixed responsibilities and duties. Saxony, for example, — a kingdom with about the same area and population as Massachusetts, — is divided outside of the larger cities into twenty-five districts. In each of these districts there is a superintendent, — or, as he is called, a school inspector, — who has to make periodical visits to the schools of his district. In these visits he is required to direct his attention especially (I quote from the laws governing his duties) (1) to the observance of the law in relation to school attendance ; (2) to the industry and demeanor of the teacher, and to the discipline, order and cleanliness of the pupils ; (3) to the adherence to the plan of study, to the methods of instruction, and to the progress of the pupils in general, and in each subject ; (4) to the apparatus used, and the elaboration of the course of study ; (5) to the scientific studies, and additional employment of the teacher ; (6) to the economical management of the school, particularly in respect to the prompt payment of the teacher's salary, and the maintenance of the school regulations ; (7) to the occupations of the inhabitants of the place ; (8) to the efficiency of the local school board. It is his duty to make an examination of the records of the local school board, and he has the right to cause the president to call a meeting of that board. He is obliged to visit the private schools, to see that the conditions of their establishment are complied with, and that they do not go beyond those conditions. He has to fill temporarily vacant places, and may give temporary leave of absence to teachers. He is obliged to call a meeting at least once a year, of all the teachers of his district, for the purpose of giving them directions. Finally, he must make a report yearly to the highest school board, giving the condition of the schools, and a statement of his work. These and other regulations governing the official duties of the superintendent are definite and quite minute. In spite of the minuteness of his inquiry into the

work of teachers, there seems to be little or no interference with the individuality of teachers, as will be shown later on. The inspector's visits to a given school are sometimes a year or two apart; but the inspection, when it is made, is most thorough. I was permitted to read one of the inspector's reports made to a district board in Saxony; and the details respecting the condition of each school and the methods employed by each teacher were very minutely and carefully stated. The reports are on file in the office of the district board, and such reports as concern any school, are, I think, open to the inspection of the teacher of that school.

In country districts there are local school inspectors, who visit the schools and have certain supervisory duties in the elementary schools. They are generally clergymen, who serve as supervisors without pay. Their duties are mainly advisory, relating to examinations, religious instruction, courses of study, securing of substitutes, and matters of local interest. In some matters their duties are connected with those of the district inspector, who, on account of the size of his district, is not able to reach all of the schools easily or frequently.

In addition to the supervision which is made by district and local school inspectors, there is constant oversight of the work done in large schools by principals. The number of recitations required to be heard by assistant teachers ranges from twenty-four to thirty-two a week, while the principal has, as a rule, to hear but twelve a week. The time not thus employed is given to making the required statistics, and to overseeing the work of his assistants.

SCHOOL BUILDINGS.

In respect to those things which relate to the comfort and health of the pupils, we have little to learn from the Germans. Their school buildings are, as a rule, poor, and the school-rooms are small and poorly ventilated. Occasionally there is an arrangement of the windows by which fresh air is admitted without falling directly upon the pupils' heads; but generally, with the exception of a few new buildings, no means of carrying away the impure air are provided. The seats and desks are of the plainest kind, frequently being of a pattern which existed in our country schools thirty years ago; viz., rude desks

several feet long, with plain board seats. The black-boards are literally black *boards*, and the amount of surface in a room very meagre, compared with what is provided here. One black-board, three or four feet wide and five or six feet long, is all that will be found in most school-rooms. Occasionally two such boards will be found, sometimes with an arrangement for drawing up.

TEXT-BOOKS.

Far fewer books for study are used by pupils of the elementary schools of Germany than with us, they being for the most part outlines, and containing only the most essential facts. This is notably true of the text-books in geography, history and natural science. Fewer reading books are used there than in our best schools, and their subject matter is generally of a didactic kind, such as historical and geographical descriptions, interesting facts of science, and moral and patriotic sentiments. Even the books for younger children have a substance to them which is quite in contrast to the weak and tasteless pabulum dealt out to many of our children.

If the comparative fewness of text-books for pupils is noticeable to the American visitor of German schools, the multiplicity of reference books for teachers is no less so. Many schools are well supplied with books for the use of teachers, upon methods of teaching the various subjects, as well as upon the subject matter to be taught. Where the schools themselves do not furnish such books, there is within easy reach of teachers a reference library, the books of which are supplied at little or no cost to the taker.

APPARATUS.

As a consequence of the liberality of the general government and of the professional zeal of teachers, all schools of Germany are well supplied with suitable apparatus for teaching. In most school buildings there is a room given up wholly to the storing of apparatus, consisting of natural objects, charts, pictures and mechanical contrivances, some of them bought outright, and some made by the teachers and pupils of the school.

In one of the provincial elementary schools corresponding to our grammar school, I counted among the apparatus for teach-

ing physics and chemistry alone seventy-seven different articles. Hundreds of charts and pictures are stored in these rooms, which illustrate subjects of geography, history and physiology. The government furnishes a special appropriation for apparatus when a school is established, and a stated sum yearly for the same purpose afterwards. In some country schools, in addition to what is furnished by the government, the communities where the schools are located, and local societies, furnish what is needed.

No comparison of the amount and kind of apparatus used in the schools of Germany and America is needed. Some of our best schools are well supplied with means for teaching, but even in these schools there is an evident want of completeness in the supply. Too often the teachers and superintendents themselves are to blame for the lack of needed means of illustrating and teaching. Certainly we cannot in all cases attribute the cause of our lamentable weakness in this regard to a want of interest or niggardliness on the part of a people who willingly tax themselves for the elegant school structures and furnishings which are seen here at every hand.

COURSE OF STUDIES.

A general plan of studies for each class of schools is issued by the minister of instruction in each State of Germany; and this general plan is elaborated by the masters of schools, subject to the approval of the district superintendents. As the general plans for most places in Germany have been in operation many years, and as there are few changes of masters, we can see that changes in the course laid down are seldom made. Not so favored are our schools. Perhaps a third of the towns of Massachusetts have no course of studies, while those of another third are scarcely worthy of the name, being made by persons wholly incompetent to perform so difficult and important a service. Even in towns and cities where good courses of study are made by school superintendents and teachers, their usefulness is vitiated through the frequent changes which are made in them.

KINDS OF SCHOOLS.

As in this country, the schools of Germany are either public or private. The public schools are those which are supported

wholly or in part at public expense, and which are controlled by the State or municipal government. The private schools are established and supported by private individuals, under certain governmental restrictions. The kinds of public schools are normal schools, high schools of various kinds, and people's or communal schools.

In addition to the above-named schools, there are schools in which some particular branch of industry or science is taught; viz., schools for hand-work, agriculture and mining, and what are called continuation schools. The latter-named schools are maintained evenings and Sundays, for the benefit of persons from fourteen to sixteen or seventeen years of age, and in general for apprentices of all kinds. Attendance upon these schools a certain number of hours weekly is in many parts of Germany obligatory, and the tuition is only in part paid by the pupils. Regular school branches are taught, and in cities drawing and other technical work.

TERMS AND SESSIONS.

The schools are in session about forty-two weeks, separated into four terms of from nine to twelve weeks each. The vacations are from one to four weeks in length, generally occurring at Easter, midsummer, Whitsuntide and Christmas.

In the schools of cities and larger villages there is a single grade in a room, and the pupils of each grade, except the lowest, are generally reciting every hour of the day. Six hours a day are thus given, — four hours in the morning and two in the afternoon, with an intermission from five to fifteen minutes between recitations. The hours for school sessions are in summer from seven to eleven o'clock A.M.; in winter from eight to twelve o'clock A.M.; and in all parts of the year from two to four o'clock P.M. In some places the higher schools, and in Berlin all schools, have but one session of five or six hours in the day.

NORMAL SCHOOLS.

There are in Germany about two hundred normal schools, most of which are supported by the general State government, some by cities, and a few by private individuals. More than half of the government schools have boarding accommodations for the pupils, which furnish board and lodging at a nominal cost.

The course of studies generally covers three years. In some States, as in Saxony, the course is six years in length, it being united directly with the eight-years elementary course in the people's schools.

The distribution of studies in these schools is shown in the following tables: —

Royal Prussian Schools, Three-Years Course.

SUBJECTS.	NUMBER OF RECITATIONS WEEKLY.		
	First Year.	Second Year.	Third Year.
Pedagogics,	2	2	3
Religion,	4	4	2
German,	5	5	2
History,	2	2	2
Arithmetic,	3	3	1
Geometry,	2	2	—
Physics,	4	4	2
Geography,	2	2	1
Drawing,	2	2	1
Writing,	2	1	—
Gymnastics,	2	2	2
Music, instrumental and vocal,	5	5	3
Foreign language (elective),	3	3	2

Six-years Course in Saxony, designed for Pupils who have graduated from the Elementary People's Schools.

SUBJECTS.	NUMBER OF RECITATIONS WEEKLY.					
	First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.	Sixth Year.
Religion,	4	4	4	4	4	3
German,	3	3	3	3	4	3
Latin,	7	7	5	4	2	2
Geography,	2	2	2	2	2	—
History,	2	2	2	2	2	2
Nature studies,	2	2	3	—	—	—
Physics,	—	—	—	3	2	2
Mathematics,	4	4	5	4	4	3
Pedagogics,	—	—	—	4	5	5
School practice,	—	—	—	—	4	4
Music, vocal and instrumental,	5	4	4	4	—	—
Gymnastics,	3	3	3	3	2	2
Writing,	2	2	1	1	—	—
Drawing,	2	2	2	2	1	1

Stenography, and piano and organ lessons, elective.

The work done in most of the normal schools which I visited was very thorough and methodical, but no more so than in our best schools.

In respect to the qualifications of normal-school pupils upon their entrance, Germany has a great advantage over us; as the instruction in the preparatory schools is uniformly good, and but little time is required to train pupils into good habits of study. In the sciences the observation work of the lower schools is particularly helpful to normal-school students, both for the training it gives them, and for the facts which are acquired as a basis for scientific work. Yet, in all the schools I visited, I saw no methods of science study, or facilities for such study, so good as in our best normal schools. It will be seen from the plan of study that much more is required in some branches than with us, especially in those branches which are frequently taught in this country by special teachers. In music every student of the normal school is required to learn to play upon some musical instrument, generally the violin. Regular instruction with several hours of practice weekly throughout the course gives the students such facility in playing the violin or piano as to enable them to teach music well when they become teachers.

There is a practice school connected with each normal school, in which students observe and practice during the last two years of their course. In some schools the amount of observation and practice under the direction of a critic teacher is much greater than that which is indicated in the above tables. Ten hours a week of practice in teaching are sometimes required of students during the last year of the course. The practice school generally consists of pupils of the entire eight-years course, sometimes divided into four sections, but more frequently into eight. Two or more critic teachers are in the school, observing and criticising the work of pupil teachers.

HIGH SCHOOLS.

The high schools of Germany are designated by different names, depending in part upon the subjects taught and in part upon the length of the course. Of the nine different kinds of schools above the elementary people's schools, by far the most important and numerous are the *Gymnasien* and *Real Gymnasien*, the former placing most emphasis upon classical

[illegible]

The relative value of the classics and science is being vigorously discussed in Germany, and changes in the plans of study are being constantly made. A comparison of the programmes given above and those of the same schools thirty years ago, shows some interesting changes. The *Gymnasium* has added weekly in French 4 hours; history and geography, 3; mathematics, 2; natural history, 2; physics, 2. It has dropped 1 hour a week in religion and German, 9 hours in Latin, and 2 hours in Greek. The *Real Gymnasium* has added 10 hours a week in Latin, and dropped 1 hour a week in religion, 2 hours in German, drawing and writing, 3 hours in mathematics, and 4 hours in science. With such requirements, there is no wonder that the boys of the high schools of Germany know more of foreign languages than many of our college graduates. Although there is a change going on in respect to the teaching of the classics, and far less is required than formerly, yet the humanistic spirit of Erasmus and Trotzendorf is still rife in many schools, as shown by the wonderful facility with which the boys of the upper classes discuss the literature of Greece and Rome in the language of the authors themselves.

I was struck with the thoroughness with which the grammar of Latin and Greek is learned, children of nine years beginning its study, and continuing it for five and six years before drill upon the paradigms and rules is thought to be unnecessary. Even the minutest points of grammar are emphasized, and learned in the driest possible form. I have seen children of tender years writhe under the rebukes of stern masters for neglecting to place properly a Greek accent, or for forgetting one of several insignificant exceptions. Although the results were so marvellous, it appeared that the means of reaching them were unnatural.

With so much time given to modern languages in the high schools of Germany, there is little wonder that more is accomplished than in our short two and three year courses. While considerable attention is given to pronunciation and conversation, by far the greatest emphasis is placed upon reading and grammar. Classic authors are read and discussed intelligently in the advanced grades; the finest shades in the meaning of words are recognized, and frequently points of English grammar are discussed which would be passed over in our schools.

Girls are not given the privileges of higher instruction in Germany that are accorded to boys. The so-called higher girls' schools are not much in advance of our best grammar schools, the course covering but nine or ten years. There is, however, in these schools instruction in French five or six years, and in English three years. Some of the higher girls' schools are directly joined with the girls' normal schools, in which German literature, French and English, are pursued as regular studies.

ELEMENTARY SCHOOLS.

Besides the primary preparatory schools (*Vorschulen*) connected with the high schools, there are elementary schools which correspond to our public primary and grammar schools. These schools are now free in many parts of Germany; and, where they are not free, only a nominal sum is charged for tuition. The course of the elementary people's schools (*Volksschulen*) covers a period of eight years, and the subjects taught are the same as those which are taught in our elementary schools, together with three or four additional subjects.

The following table indicates the comparative amount of time given to each branch of instruction:—

SUBJECTS.	NUMBER OF RECITATIONS WEEKLY.						
	First and Second Years.	Third Year.	Fourth Year.	Fifth Year.	Sixth Year.	Seventh Year.	Eighth Year.
Religion,	3	6	4	4	5	6	6
Language,	—	2 $\frac{1}{2}$	4 $\frac{1}{2}$	4	3	3	4
Reading,	} 10 {	5 $\frac{1}{2}$	4	3	3	2	2
Writing,		3 $\frac{1}{2}$	4	3	3	2	2
Arithmetic,	6	6	4	4	4	4	4
History, or geography,	—	—	—	2	2	2	2
Object lessons,	3	2	—	—	—	—	—
Natural history,	—	—	2	2	2	1	—
Geometry,	—	—	—	—	—	2	2
Physics,	—	—	—	—	—	2	2
Drawing,	1	2	2	2	2	2	2
Singing,	—	—	2	2	2	2	2
Gymnastics,	—	—	2	2	2	2	2

From this programme we learn that the elementary schools of Germany are required to give instruction in religion, including Bible and church history and the catechism; geometry; elementary science; ancient history and gymnastics, — all of which are seldom or never systematically taught in corresponding schools of this country. The course in arithmetic does not embrace so many subjects as with us, and there is less of the geography of foreign countries and more of home geography than is given in our schools. In other respects there is not much difference in the subjects required to be taught in the elementary schools of the two countries; always remembering that with us the requirements concerning subjects of instruction here are not always observed.

In mixed or what are called one-class schools, in which are pupils of all ages, two plans of classification prevail, neither of which resembles our classification of such schools. By one plan, the older pupils, or those from ten to fourteen years of age, constitute a single class, and are separated in some studies into two or three sections. These pupils attend school four hours each forenoon, except Wednesdays and Saturdays, when they attend two hours. The younger pupils constitute another class, divided also into two or three groups or sections. These attend afternoons three hours daily, except Wednesdays and Saturdays, when they attend two hours in the morning. The recitation period, as in the graded school, is about fifty minutes in length; and, when the class is separated into sections, each division is given somewhat different work to do, although all are supposed to be reciting during the period. By this arrangement there are about eighteen recitations a week with the older pupils, and twelve with the younger. In a school of this kind near Leipsic the following daily programme was followed:—

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
First, . .	Catechism.	Bible stories and explanations.	History.	Catechism.	Bible history and explanation.	Physics.
Second, .	Language and reading.	German sentences, etc.	Arithmetic and geometry.	German and writing.	German.	Singing.
Third, . .	Arithmetic.	Geography.	II. Observation lessons, home geography and singing.	Arithmetic.	Drawing.	II. Numbers.
Fourth, .	Writing.	-	II. Reading and writing.	Reading and writing.	-	II. Reading and writing.

Afternoon.

First, . .	Bible stories.	Bible stories.	-	Bible stories.	Observation lessons and home geography.	-
Second, .	Reading and writing.	Reading and writing.	-	Reading and writing.	Reading and writing.	-
Third, . .	-	Numbers.	-	-	Numbers.	-

From this programme it appears that the older pupils have eighteen recitations a week, of which six are in language (including reading, writing and language or grammar), three in arithmetic and geometry, four in religion (Bible history, catechism, etc.), one each in geography, history, drawing, singing and physics. The younger pupils have fourteen recitations a week, of which six are in reading and writing, three are in numbers, three in Bible stories, and two in observation lessons and home geography, giving a short time one day to singing.

Such an order of recitations would hardly be tolerated in the schools of many of our rural neighborhoods, where it is thought that a teacher is seriously neglecting his duty who fails to hear every pupil recite in every branch of the curriculum at least once a day.

The second plan of classification for country schools is to divide the entire school into three sections in most subjects, a class in each subject reciting about fifty minutes, as in all other schools.

Both of these plans of classification are in strong contrast to the classification of our ungraded schools, by which there are frequently more classes held in a day than there are pupils, and but five or ten minutes given to each recitation. Some modification of our present custom in the direction of the last-named plan would be an improvement.

TEACHING, — GENERAL CHARACTERISTICS.

From what has been said in respect to the required qualifications of teachers, courses of study, character of text-books and length of recitations, it will be inferred that the general character of the work done in the school-room is in many respects quite different from what is done in our own schools. Greater excellence of teaching, and greater uniformity in results than with us, are observable. Few teachers will be found who have not a definite object in all their work, and who do not strive to reach that object in a systematic and methodical way. We may not always agree with the opinions of these teachers, yet we cannot doubt that they have well-studied opinions, both in regard to the object to be reached and the means to be taken to reach it. That is true in respect to some of our teachers. Indeed, we may go further, and say that in some of our American schools the object sought and methods employed are far superior to most of the work which we are likely to see in Germany. But the number of teachers in America of whom this can be said is small, — so small, in fact, that we lose sight of them in the multitude of teachers whose work is both without aim and without an intelligent method.

One characteristic of all the instruction in German schools is thoroughness. Not so much is attempted in the same length of time as with us, but it is more thoroughly done. The subjects in geography and arithmetic are fewer than we generally teach, but at the end of the course the pupils have thoroughly learned the subjects. This is done by systematic teaching and frequent reviews. Not unfrequently the points of a single lesson will be reviewed several times, and they will be brought in connection with points which were learned a week or a month before.

Another characteristic of the German teacher is his entire

mastery of the subject he teaches. As he is expected to supply what many of our text-books give, he must be prepared with all parts of the subject in hand, and all subjects relating to it. In all information studies, like geography and history, he talks earnestly for several minutes to his listening pupils, who are expected to reproduce what he says in their own language. They are frequently stopped and sharply corrected for inaccuracies and incorrect expressions. Again the subject will be taken up by the teacher, and again reproduced by the pupils, until the long recitation of fifty minutes or more is ended. At the beginning of the recitation a review of what has preceded is frequently taken, and at the close there may be a general summary of all that has been said.

The use of objects and pictures in teaching and in illustrating subjects which have been presented is a marked feature of the elementary schools; and in all schools the value of skilful questioning in leading pupils to the unknown from the known seems to be well understood by teachers. The making of diagrams and pictures illustrating facts which have been learned is practised in exercise books and in oral recitations by pupils of the best schools.

There seems to be little of daily marking of recitations, or indeed of any resort to those artificial stimulants which some of our teachers think to be necessary. The estimating of percentages upon written examinations, which, by the way, are few and far between in the elementary schools, is not practised, so far as I could learn, by German teachers. Nor are they troubled by many records, the principals having to keep all necessary statistics. A class-book is kept by every teacher, in which is recorded every Saturday or Monday the topics which have been taught during the preceding week. This book is open to all visitors, and shows at a glance what has been done in all the subjects of instruction for a term or a year.

DISCIPLINE.

While whipping in many places is practised to a limited extent only, and while each case is reported to the authorities, there are some forms of corporal punishment, which, I think, are not reported, and, so far as I could judge, are not much limited in their application. I refer to ear cuffing, hair pulling, shak-

ing, etc. The use of sarcasm and the calling of names by the teacher are apparently universal means of correction for the most trivial mistakes in recitation. Failure to answer a question, a careless slip of the tongue, a mispronounced or misspelt word, brings down upon the offending pupil such anathemas as to make the visitor wonder what would happen if something really worthy of censure should occur. Teachers are delegated to watch the children during the recesses, of which there are several in the day. Sometimes the entire recess of five or ten minutes is occupied in marching up and down the school playground.

ILLUSTRATIVE EXAMPLES.

The following notes of lessons heard in various parts of Germany illustrate somewhat in detail the methods employed in elementary schools.

Reading, First Year, People's School, Leipsic.

The regular reading lesson upon berries, etc., was preceded by an object lesson. The objects which were used in the lesson were upon the desk as I entered the room. The teacher asked many questions like the following, the pupils answering in entire sentences: "How is this fruit used? What is this drop called? (Squeezing the grape.) Of what use is the grape? What must fruits and berries be, to be of use? (Ripe.) What kind should we not eat? I have told you a story about poison berries, — who can tell the story?"

It will be observed that the teacher's purpose in this object lesson and questioning is to lead the pupils to understand the thoughts expressed in the reading lesson, and to give the words and expressions which they are subsequently to read.

The children read with good expression and fluency. I notice that their articulation is good, particularly of t's, s's and p's. When a word is not readily given in the reading, the pupil is allowed to pause a moment, seeming to sound the word, when it is pronounced correctly. A second reading shows little or no hesitation in calling the words. Silent reading as a preparation for oral reading is not practised in any part of the recitation.

Reading, Fifth-Year Pupils, Normal (Practice) School, Eisenach.

The piece to be read is "The Diver," by Schiller, and the teacher says that they are about to read of a man who, at the request of a king, jumped into the Charybdis after a golden cup. Then follows rapid questioning of pupils, such as: "What is the Charybdis? Why dangerous? What other whirlpool near by? Where was it supposed to be? To what sea do Straits of Messina belong?" The map is used freely, and points which the pupils do not know are told them by the teacher.

The teacher then speaks of the peculiar and dangerous fishes in these waters, and shows pictures of them upon a chart. Names of all given, and their characteristics. Occasionally pupils allowed to answer in concert, especially difficult names. At this point the teacher asks that all that has been given be repeated by one or more pupils.

The teacher then tells the story of "The Diver," beginning with some imaginary references to the king, his journey from Palermo to the sea, and the purposes of it. Occasionally, to keep the interest of the pupils, he asks questions like the following: "What would the king be likely to carry on such a journey? What do you suppose prompted the king to throw the cup into the whirlpool? Would the knights like to do the king's bidding? Why? Why did they hesitate? Why did the youth volunteer to go after the cup?" As the story proceeds, headings are placed upon the black-board, the teacher asking the pupils to decide what the headings should be. At certain points of the story the teacher asks the pupils to repeat all that has been said. The reading of the piece follows, each pupil being criticised as she reads. Animated expression and clear enunciation are the special features of the reading.

Questions are asked by the teacher, to bring out the thought expressed and to hold the attention. Frequently the answers are expected to be in the words of the poem. At other times answers in entire sentences in the pupils' own words are given. A few of the rhetorical beauties of the poem are pointed out. When the reading is not expressive or fluent, the pupils are asked to read silently. Two or three lines are occasionally read in concert. No pupil is interrupted while reading.

Lesson on Animals, First Year in School, Weimar.

Teacher begins by asking the children about what they had seen. Moon talked about ; looks like a circle, etc. Stars have rays of light. Teacher asks what they talked about the day before. Children repeat the resemblances of the dog and cat, giving entire sentences to answers. "To-day," the teacher says, "we will see how they differ." The chart is shown, and the differences in size, shape of head, shape of ears, construction of foot, hair, etc. The teacher insists upon exact answers after the observation has been made, encouraging the children to use "but ;" as, for example, "The dog's head is long like a horse's, but the cat's head is short."

Lesson on Animals, Intermediate Grade.

Subject, the crab and the worm. A specimen in a glass case, also pictures on the wall. Pupils first asked to repeat the substance of previous lesson. The points of difference between the crab and other animals stated in complete sentences, in respect to color, form of parts, habits, use, etc. Then follows a new lesson upon the worm, the pupils being led to observe the specimen or picture, and answer questions like the following : "What can you say of its length? It consists of what? How many parts? What do you see on the outside? Use of the hairs? What movement has it? In this respect, what is it like? What are its habits? What must it have to bore with? How is the borer constructed? How is it a weather prophet? When does it burrow deep in the ground? When shallow? Its food consists of what? Where found? Why? Use of the worm?"

An outline is placed upon the black-board ; five points, each point a word. Pupils take each point, and give oral statements in entire sentences, and afterwards write out a description of the worm in books provided for the purpose.

The following notes indicate the character and amount of work done in arithmetic in the various grades of one of the large people's schools in Leipsic : —

First Year. — Numbers to 15 have been taught. This is enough for the year, the master thinks, although the course prescribes 20. Many problems like the following placed upon

the black-board, and answers given as soon as the last figure is written : —

$$3 \times 3 + 6 \div 5 + 7 - 2$$

The pupils read results quickly in detail as follows : —

$$9, 15, 3, 10, 8$$

Sometimes they give the operations thus : —

$$3 \times 3 = 9; 9 + 6 = 15, \text{ etc.}$$

After two or three repetitions, the pupils are asked to repeat the results as above given, without looking at the problem. Drill work all in abstract numbers.

Second Year. — Prescribed work for the year, combinations to 100. Problems like the following written upon the black-board : —

$$47 + 49 \div 6 =$$

$$39 + 33 \div 6 =$$

Pupils perform mentally according to following form : —

$$47 + 40 = 87, + 9, = 96, \div 6, = 16$$

When the division is too difficult to be performed at sight, the process is as follows : —

$$57 + 45 \div 3$$

$$57 + 40 = 97, + 5, = 102. \quad 90 \div 3 = 30$$

$$12 \div 3 = 4; \text{ therefore } 102 \div 3 = 34$$

Third Year. — Prescribed work for year, operations to 1,000. Following series of problems given and performed mentally, to show order of work in this grade : —

$$(1) \quad 364 + 60 \quad 496 + 40 \quad 583 + 70$$

$$(2) \quad 280 + 56 \quad 570 + 67 \quad 780 + 73$$

$$(3) \quad 165 + 65 \quad 564 + 56 \quad 666 + 84$$

$$(4) \quad 266 + 76 \quad 488 + 44 \quad 367 + 77$$

$$(5) \quad 160 + 170 \quad 280 + 190 \quad 580 + 160$$

$$(6) \quad \text{adding by 6's.}$$

$$(7) \quad \text{adding by 30's.}$$

$$(8) \quad \text{adding by 60's.}$$

$$(9) \quad 2 \times 60 \quad 4 \times 60 \quad 7 \times 60$$

$$(10) \quad 3 \times 69 \quad 4 \times 67 \quad 5 \times 69$$

$$(11) \quad 2 \times 160 \quad 2 \times 180 \quad 2 \times 260$$

Fourth Year. — Much mental drill like the following given : —

$$\frac{1}{6} \text{ of } 56 \text{ hectoliters.} \quad \frac{1}{4} \text{ of } 58 \text{ hectoliters.}$$

$$\frac{1}{6} \text{ of } 96 \text{ dozen.} \quad \frac{1}{8} \text{ of } 98 \text{ dozen.}$$

Last problem performed orally as follows, by pupils: $\frac{1}{6}$ of 96 dozen = 16 dozen; $\frac{1}{6}$ of 24 single ones = 4; therefore $\frac{1}{6}$ of 98 dozen = 16 dozen and 4. $\frac{1}{4}$ of 72 gross. Performed thus: $\frac{1}{4}$ of 40 gross = 10 gross; $\frac{1}{4}$ of 32 gross = 8 gross; 10 gross + 8 gross = 18 gross.

Many similar problems given and solved as above. The last mental problems given were like the following: $\frac{1}{8}$ of 123 days. Solved thus: $\frac{1}{8}$ of 120 days = 15 days; $\frac{1}{8}$ of 1 day = 3 hours; $\frac{1}{8}$ of 3 days = 3×3 hours, or 9 hours; therefore, $\frac{1}{8}$ of 123 days = 15 days 9 hours. Then follows written work in long division, like —

$$121,609.36 \div 436$$

Sixth Year. — Many problems like the following solved mentally: —

What decimal is $\frac{1}{2}$ equal to?

What decimal is $\frac{1}{4}$ equal to?

What decimal is $\frac{3}{4}$ equal to?

What common fraction = .50?

What common fraction = .25?

2 pf. is what decimal of a mark?

25 pf. is what decimal of a mark?

One book cost 2 pf.; what cost a dozen? What cost 4 dozen? What cost a gross? Five meters cost 75 pf.; what cost 1 meter? What cost $3\frac{3}{4}$ meters? One dozen cost 18 pf.; what cost $3\frac{1}{2}$ dozen?

(Explanation: If one dozen cost 18 pf., $\frac{1}{2}$ dozen will cost 9 pf., and $\frac{5}{2}$ dozen will cost 45 pf.

What cost 2 dozen and 10?

(Explanation: If one dozen cost 18 pf., $\frac{1}{3}$ dozen will cost 3 pf., and $2\frac{5}{6}$ dozen, or $1\frac{7}{6}$ dozen, will cost 17×3 pf., or 51 pf.)

Sometimes the explanation is indicated on the black-board by the pupils.

Seventh and Eighth Years. — The subjects pursued during these years are applications of percentage in interest, discount and partnership, alligation and mensuration. Much mental work in abstract and concrete numbers is done, especially in the direction of short processes.

Geography, Fifth Year in School, Practice Class Connected with University of Jena.

Subject, Erz Mountain district. The pupils are called upon first to repeat the substance of the previous lesson upon the

upper Erz Mountain district, the topics being given by the teacher. The topics are : —

1. Climate.
2. Occupations of people.
 - (a) Agriculture.
 - (b) Cattle raising.
 - (c) Hand work.
3. Manners and customs of people.

Then follows the advance lesson, which is the lower Erz Mountain district. The map is before the class, and a black-board upon which the topics are placed as soon as they are developed.

The object to be reached is first given by the teacher as, “We will first speak of the surface of this region.” Then follow questions, bringing out ideas concerning the height and appearance of hills and mountains, compared with those of the upper district. The pupils answer in entire sentences. The second topic is climate, and inferences are made by the pupils from the character of the surface. Comparisons and inferences like the following are made: “The surface of this region is lower than the upper district; mountains less high, less exposed; therefore there is less snow here, and the winters are shorter.” When all the points of a topic are brought out by questions, they are repeated by the pupils without questions, and heads are placed upon the black-board. The teacher gives constantly facts or information which the pupils could not infer, such as the existence of forests, beauty of the meadows, etc.

I note the following good features of this lesson : —

1. The teacher has a definite plan, and follows it.
2. Constant association of ideas.
3. Inferences by pupils from known causes.
4. Constant repetition.
5. Pupils led to express themselves fully and accurately.
6. Teacher has great patience with pupils, no haste.

CONCLUSION.

In this brief and imperfect record of my observations in Germany, I have dwelt more upon the conditions under which the schools there are maintained than upon the character of the

schools themselves. In a few instances I have thought it wise to bring some of the conditions of carrying on the schools in that country in contrast with corresponding conditions in our own country, in the hope of calling attention to those features of organization which stand in the way of attaining the best results in our schools. I am aware that there are some features of school organization in Germany which would be impossible under our form of government, and that there are some features which we would not adopt if we could. Yet there is one underlying principle of action in the management of the schools of Germany which we as a people would do well to consider carefully. I allude to the recognition of teaching as a profession everywhere, especially in the laws controlling the schools; an assumption that education in the direction and supervision of the schools as well as in methods of teaching, calls for the highest and best wisdom which can be obtained. In some sections of our State this principle is recognized. From the results observed in such favored sections, and in other countries where the highest degree of success is attained, we may conclude that the best interests of our schools demand: First, that there be some provision made by which the professional character of the teaching in all our schools, graded and ungraded, elementary and secondary, shall be assured; secondly, that some provision be made by which the tenure of office of all worthy teachers shall be more fixed than it is at present; thirdly, that some provision be made by which the evils arising from frequently changing and unwise courses of studies be avoided; and, finally, that some provision be made by which systematic, skilled supervision shall be secured over all the schools of the country, as well as of the city.

Respectfully submitted,

JOHN T. PRINCE.

NEWTONVILLE, MASS., Dec. 31, 1889.

D.

REPORT OF A. W. EDSON,
AGENT OF THE BOARD.

REPORT.

To the Massachusetts Board of Education.

The district assigned me, Hampden and Worcester counties, includes eighty-one towns and cities, having seventeen hundred teachers. In the regular work of inspection during the past year I have visited the schools and held teachers' meetings in the following-named towns:—

Hampden County.

*Agawam,	*Longmeadow,	Tolland,
Granville,	Montgomery,	Westfield.

Worcester County.

*Ashburnham,	Lancaster,	Princeton,
Berlin,	*Leicester,	Rutland,
Blackstone,	*Lunenburg,	*Shrewsbury,
*Boylston,	Mendon,	*Southborough,
Dana,	New Braintree,	*Sterling,
*Douglas,	*Northborough,	*Sutton,
*Gardner,	Northbridge,	*Uxbridge,
Hardwick,	*Oakham,	*West Boylston,
*Holden,	Paxton,	*Westminster.
Hopedale,	*Petersham,	

By invitation, or for some special purpose, I have visited some of the schools in

Attleborough,	Leominster,	Somerville,
Boston,	Monson,	Spencer,
Chelsea,	North Attleborough,	Springfield,
Chicopee,	Orange,	Winchendon,
Clinton,	Quincy,	Worcester.
Fitchburg,	Revere,	
Holyoke,	Salem,	

* Addressed the people in the evening.

I have also visited each of the five State normal schools, the reform schools at Lancaster, Monson and Westborough, the truant school at Springfield; have assisted at institutes in Gardner, Grafton, Monson and Templeton; and have addressed various educational gatherings in different parts of the State from time to time, as called upon.

PROGRESS.

Desiring to obtain a statement of educational advancement in Hampden and Worcester counties, I recently addressed to the superintendent or chairman of the school committee of each town a circular letter, asking for a brief statement of progress noted in their schools the past year; calling attention to any improvements in the condition of school buildings, out-houses, furniture, ventilation; to the supply of books, charts, maps and apparatus; the teaching of natural science, physiology, drawing and music; the grade and permanency of teachers employed, and wages paid; teachers' meetings and course of study. The following is a summary of the reports received, which purport to give, not the condition of the schools, but the improvements made during the past year. The one item of teachers' meetings, however, refers to the regular practice, not the year's growth.

Hampden County.

Agawam. — One new building; better grading; improved methods; frequent teachers' meetings.

Blandford. — Language charts; more attention given to natural science, physiology and drawing; better teachers.

Brimfield. — No report.

Chester. — New globes; language charts; language lessons.

Chicopee. — New building (two rooms); more than the customary amount of repairing, painting and beautifying buildings; important changes in books; special attention to physiology and temperance instruction, natural science and music; clay modelling and drawing models introduced into primary schools, charcoal work into high school; occasional teachers' meetings.

Granville. — Two buildings painted, two repaired; new language charts in all schools; three general charts.

Hampden. — Buildings repaired; more apparatus; better methods; practical lessons in botany and zoölogy; clay modelling introduced.

Holland. — Schools about as usual.

Holyoke.—A few buildings better heated and ventilated; better sanitation in all schools; water carried to second story of nearly all buildings; fire-escape tower built; school libraries enlarged; strong impulse given to music, drawing and calisthenics, by special teacher in each; mechanical drawing introduced into ninth grade, phonography into the high school; large room fitted up for manual training; teachers' institute organized.

Longmeadow.—One new building (four rooms).

Ludlow.—Buildings repaired; out-houses built; salaries increased; methods improved; some high-school studies added to the upper department of village school.

Monson.—New building (two rooms) under way; more attention to music; teachers' meetings once or twice each term; course of study revised.

Montgomery.—Extensive repairs; language chart for each school; better results in drawing.

Palmer.—No report.

Russell.—One new building, one room added to another; globes, maps and charts for all schools.

Southwick.—Schools about as usual.

Springfield.—Three new buildings (four rooms each); better sanitation; four hundred dollars for material and apparatus for science work in high school; salaries increased; manual training introduced into the eighth grade, some work in wood into the fifth and sixth grades, sewing in the eighth,—previously taught in the four next lower grades; one general teachers' meeting, and two or three grade meetings monthly; course of study revised.

Tolland.—Three buildings repaired; larger supply of books; new language charts and maps; methods improved.

Wales.—Three sets of readers and language charts for all schools; improved methods.

Westfield.—Advance all along the line; thirty-five thousand dollars voted for building and repairs; much attention given to ventilation and drainage; improved methods and enthusiastic work on the part of all teachers; frequent teachers' meetings; superintendent employed.

West Springfield.—Buildings repaired; new charts, maps and apparatus; improved methods, especially in number and language work; occasional teachers' meetings.

Wilbraham.—No report.

Worcester County.

Ashburnham.—Out-houses improved; supply of charts, maps and books increased; better methods; teachers' meetings monthly during spring and fall terms.

Athol. — New building (four rooms); better language work; awakened public interest.

Auburn. — Buildings and out-houses thoroughly repaired; more variety in text-books; new maps, charts, unabridged dictionaries; improved methods; better-trained teachers.

Barre. — High-school building thoroughly repaired; one additional school; four centre schools placed in charge of a principal, — result, a marvellous change for the better; drawing and book-keeping introduced; salary of grammar-school principal increased.

Berlin. — Three buildings repaired and painted; methods improved.

Blackstone. — Buildings and out-houses repaired; number tables and blocks furnished the primary schools; supply of charts and books greatly increased; many pedagogical books purchased for teachers' use; marked and increasing interest on the part of all teachers in pedagogical and psychological study, and in the discussions at teachers' meetings; great advance in methods of teaching, especially in primary grades; teachers' meetings monthly; superintendent employed.

Bolton. — No report.

Boylston. — Buildings extensively repaired, one reseated; new unabridged dictionaries and language charts; improved methods.

Brookfield. — Schools in about the usual condition.

Charlton. — One new building; others repaired and refurnished.

Clinton. — Buildings much improved in heating and ventilation; new globes, charts and apparatus; special progress in writing, reading, geography, elementary science and music; both general and grade meetings frequently held.

Dana. — Better results, especially in writing, reading and language.

Douglas. — No report.

Dudley. — One new building, substantial repairs in another; out-houses separated; two new schools opened.

Fitchburg. — One new building; improved system of ventilation in two buildings; salaries, except in the lower grade, increased; special effort to enforce the law in reference to truancy and the employment of children; monthly teachers' meeting, and a teachers' reading circle.

Gardner. — Extensive repairs on buildings; general improvement in methods, most marked in number and language.

Grafton. — Two buildings enlarged, at cost of thirty-five hundred dollars; many repairs made and ventilation improved; new apparatus for high school, sand and moulding boards for lower grades; special teacher in music; appropriation for supervision by school committee increased to one thousand dollars; teachers' meetings once each term.

Hardwick. — Increased supply of books and charts; methods improved.

Harvard. — One building entirely remodelled, others fitted up with slate black-boards ; increased supply of books, charts, globes, apparatus ; special instruction in music ; methods improved.

Holden. — One building better heated and ventilated ; more reference books and charts ; methods improved ; three teachers' meetings per term ; new course of study.

Hopedale. — New high school building (gift), cost sixty-two hundred dollars, land and grading sixteen hundred dollars more ; single seats for all school-rooms not previously provided ; ever-increasing supply of books, maps and charts ; special teacher of music ; teachers' meetings monthly.

Hubbardston. — All buildings put in good repair ; new readers and language charts ; methods improved ; superintendent employed.

Lancaster. — Buildings repaired and painted ; water carried into one, slate black-boards placed in two ; new supply of maps, gazetteers, reading, number and language charts ; salaries increased ; methods improved ; teachers' meetings monthly.

Leicester. — Special teacher in music ; better teachers employed ; better methods.

Leominster. — Buildings, especially the high school, greatly improved in heating, ventilation, and by refurnishing ; new supply of language, physiological and number charts, physical and political maps and moulding boards ; better results in music ; teachers' meetings semi-weekly.

Lunenburg. — New building (two rooms), cost thirty-five hundred dollars ; new furniture in one building ; language charts for all schools ; salaries increased ; teachers' meetings monthly.

Mendon. — Increased supply of books and apparatus ; teachers who remain through the year paid a dollar a week additional.

Milford. — Extensive repairs ; sanitary condition improved ; fire escapes provided ; methods better ; teachers' grade meeting monthly.

Millbury. — No report.

New Braintree. — Schools about as usual.

Northborough. — Three buildings thoroughly repaired ; out-houses built ; new maps and geometrical instruments ; special attention to drawing ; teachers' meetings once in three weeks.

Northbridge. — New high-school building, to cost fifty-one thousand dollars, well under way ; buildings and supplies well kept up ; science teaching systematically begun in all grades ; marked progress in drawing and music ; teachers' meetings semi-monthly ; new course of study.

North Brookfield. — High-school building ventilated, at cost of nine hundred dollars ; special teacher of drawing for a portion of the year ; new drawing models.

Oakham. — New language charts and language lessons.

Oxford. — Schools about as usual.

Paxton. — No report.

Petersham. — Schools about as usual.

Phillipston. — Buildings painted and repaired ; new language charts, arithmetics, histories and supplementary readers ; improved methods ; two teachers' meetings per term ; superintendent employed.

Princeton. — New charts ; better teachers and better methods.

Royalston. — Buildings and out-houses thoroughly repaired ; new histories, language charts and books ; improved methods ; two teachers' meetings per term ; superintendent employed.

Rutland. — Buildings and out-houses repaired ; better supply of books ; teachers' meetings monthly.

Shrewsbury. — Laboratory added to high school ; new outline maps and music books ; school library increased ; methods improved.

Southborough. — Buildings repaired ; assistant in high school and special music teacher ; more thorough preparation for high school required ; special interest in language, writing, mathematics, music ; in the high school, in commercial law, French and German.

Southbridge. — High school moved to the new town hall, and provided with large and well-arranged laboratories, new furnishings, etc. ; supply of books, maps and charts increased ; occasional teachers' meetings.

Spencer. — New high-school building (gift), cost forty-five thousand dollars ; one other building new, one thoroughly ventilated ; new charts, globes, maps and supplementary readers ; methods improved ; special progress in drawing and music ; teachers' grade meetings and superintendent's grade meetings held weekly ; course of study revised.

Sterling. — Two buildings painted and one extensively repaired ; books labelled and better cared for ; several new sets of maps ; apparatus and piano for the high school ; slight increase in salaries, and better-trained teachers ; instruction in high school improved, especially in reading, declamation, science and music.

Sturbridge. — One building repaired, and yard and out-houses added ; several new maps, charts, reference books and teachers' manuals ; teachers' meetings monthly ; new course of study.

Sutton. — One building moved to a better location, having a good yard ; improved ventilation ; out-houses in better condition.

Templeton. — Four buildings and all out-houses thoroughly repaired ; new black-boards in four ; much new apparatus ; important changes in text-books ; methods improved ; frequent teachers' meetings ; superintendent employed.

Upton. — Better work in all schools, especially in the high school ; schools better graded ; new course of study.

Uxbridge. — High-school course extended, and assistant employed.

Warren. — One building better ventilated, and one better heated; new maps; teachers' library of reference books started; better-trained teachers and better salaries; increasing interest on the part of parents; frequent teachers' meetings.

Webster. — Increased supply of globes and apparatus.

Westborough. — Ventilation in four school-rooms improved; water-closets in three buildings; special improvement in music and drawing.

West Boylston. — One new building, one thoroughly repaired; one new school opened; improvement in punctuality and reading; occasional teachers' meetings.

West Brookfield. — Improvement in language work.

Westminster. — Several buildings painted and repaired; special teacher in music; occasional teachers' meetings.

Winchendon. — Schools about as usual; teachers' meetings monthly.

Worcester. — Much attention given to sanitation and ventilation of buildings; occasional general teachers' meetings; several clubs of lower-grade teachers meet monthly.

From these reports, as well as from personal observation, I am convinced that there is a steady improvement in the condition and work of the schools. Teachers from normal and city training schools are everywhere at a premium, and are obtained whenever possible. The tendency of wages is upward, which allows a more careful selection and longer retention of good teachers. Much attention is given to the ventilation and repairs of school buildings, especially in the larger places,—a result of the efforts of the State inspector of public buildings. The supply of books, charts, maps, etc., is good and is being increased rapidly. Courses of study are being provided, and the schools are better graded from year to year. Teachers' meetings, held monthly or semi-monthly, are quite common even in the small towns. In many places special teachers of drawing and music have recently been employed, and the study of natural science and physiology is becoming more prominent.

One of the discouraging features, and a great drawback to the best of work, is the custom, too rigidly followed, of utilizing "home talent" for teachers. To be sure, many of our best teachers live in the towns or cities where they teach; but the policy that gives the girls at home a monopoly of the schools, and ignores competition from outside, is bad, even vicious. It discourages thorough scholarship and professional training,

tends to favoritism and low wages, and prevents the discharge of poor teachers. If a teacher can obtain a position through political or personal influence, rather than professional ability, she can retain it in spite of poor work. Too often it would appear that the schools are for the teachers, not the teachers for the schools. When a superintendent or committee feels that public sentiment will support him in selecting the best teachers to be had for the salary offered, wherever they may be found, the schools are sure to rank high.

INSTITUTES.

The four institutes held in this district during the past year were attended by about three hundred teachers and many school committee men. The interest in these gatherings varied with the educational thermometer of the locality where they were held. In most towns the institute was welcomed heartily by teachers and committees; in some few towns the indifference was very noticeable. At each of these institutes there was usually an attendance of about seventy-five teachers, coming by invitation from adjacent towns. In one town teachers were not allowed to attend, because they had recently attended one or two cattle shows. From another town most of the teachers arrived an hour and a half late, and left an hour and a half before the close of the afternoon session. As might be expected, no member of the committee from that town was present. In marked contrast is the spirit of another school board, shown by the letter addressed by its secretary to each teacher employed, which letter I quote:—

There will be a teachers' institute held under the auspices of the State Board of Education, at _____, on _____, at 9 A.M. The school committee at its last meeting voted to direct all the teachers of this town to be present at this institute, and to make a detailed report in writing of the same, to the committee, within two weeks after the institute.

Five of the six members of the committee from this town were also present at the institute. I think it would be wise to increase the number of institutes held during the year, so that teachers might have the benefit of attending them oftener, at least once in two years. As now arranged, it will take five years to give each teacher one such privilege.

TRUANCY.

The law requires school committees to appoint and fix the compensation of two or more suitable persons as truant officers, whose duty it shall be to attend to all cases of truancy. In most towns, not in all, such officers are appointed. In a few cases these men are active, and, as well as they are able, do their duty in enforcing regular attendance in the public schools. Of course they can do little where there is no place to which to send habitual truants. In most towns, owing to the fact that there is no truant school, to the small compensation allowed, to the fear of offending neighbors and friends, or to the indifference of the committee, the officers do practically nothing, and the law is a dead letter.

During the past year there has been a determined effort on the part of several towns in Worcester County to secure the establishment of a truant school. Clinton, Holden, Northbridge, North Brookfield, Southbridge, Sutton, Templeton and Warren voted to instruct their committees to request the county commissioners to establish such a school, and erect suitable buildings. Such request was made to the commissioners, who returned answer that there was no money in the county treasury for such purpose. It is to be hoped that during the coming year some action may be taken to lead the county commissioners to interpret the law, which reads "shall establish," to mean something more than a mere permission.

The need of such a school is a pressing one. The chairman of the committee in one of our larger towns writes: "Our greatest drawback in efficient school work is the lack of a place for truants. Seventy-five per cent. of our children are of foreign parentage, and, with a very few exceptions, it is a constant warfare to get them into school. We have united with several other towns in a petition to the county commissioners to establish such a school. I think if we could only have the privilege of making an example of one case, it would not be necessary to repeat it in five years."

COMMITTEES.

It is a pleasure to be able to bear testimony to the efficiency of many of the school committees in this district. Many of

them have held the office several years, and their efforts in behalf of the schools are bearing good fruit. It is a difficult matter to find men and women well fitted for the office who have interest in the schools, time to give to them, and judgment to properly care for them. When such are found, they should be warmly supported and retained as long as possible.

In most towns there are but three members on the committee, — enough for the best of work. It is almost universally true that with a small committee there is a feeling of greater personal responsibility, more united and definite work on the part of both committee and teachers, more general advancement. With few exceptions, more satisfactory work is done in towns having a small committee, than where that body is large and unwieldy.

A practice too common with large committees, and which can only be condemned, is to divide up the schools and the duties pertaining to them among the different members, each having a certain number of teachers to employ, etc. This custom is a relic of the old district system, and violates the spirit, if not the letter, of the law. In the employment of all teachers the committee should act together, each member having an equal voice in the selection of all. This practice acquaints the entire committee with the qualifications and work of each teacher employed, tends to do away with favoritism, relieves any one member of the responsibility of making a change, and greatly strengthens the schools.

SUPERVISION.

The more I study the present condition and future outlook of our schools, — country, village and city, — the more I am convinced that for any decided and permanent advancement, their hope lies in efficient supervision. There may be from time to time in certain places a noticeable improvement in methods and results, owing to the selection of a specially competent teacher or committee; but the advance will be only temporary. Occasionally there are found committees who have the time, inclination, ability and the previous training which fit them to direct the work of teachers; but these are few and far between. Nor should supervisory work be required of committees. They may perform all the legitimate

duties connected with the school board faithfully and conscientiously, and still have very little time to give to a study of educational literature, to the philosophy of education, to new and advanced methods, to visiting other and better schools than are found in their own town, and attending educational gatherings. Of necessity the vision of the average committee man is limited on school questions, as on law, medicine, or any business for which he has not had special training, and *to which he does not give his undivided time and attention*. And one fact is quite noticeable, which in itself speaks volumes: those committee men who are best fitted to inspect schools and direct school work, are always most favorably disposed toward supervision; they recognize its need and value.

The arguments in favor of skilled supervision are many and unanswerable, and its practical working is enough to convince any one of its desirability. Among the many tributes to its practical value, I quote the words of the chairman of a committee in one of the towns in this district: "Our greatest find the past year has been a first-class superintendent. Active in work, strong in good methods, careful and methodical in expenditure, bound to work in harmony with his teachers, intelligent, cheerful and progressive, his influence is felt in every school and on every pupil. He meets his teachers regularly and often, with hints and suggestions that are of great value to them. Our whole school system has received an impetus which will raise high the standard in our midst."

I find in my district the trend of public sentiment is strongly toward the employment of skilled supervisors. Committees, teachers and the people are considering the question favorably; and I am sure the time will soon come when no town will feel that it can afford to be without the services of a competent superintendent.

Three additional superintendents have been employed in this district,—Dr. Adrian Scott in Blackstone, Mr. George H. Danforth in Westfield, and Mr. R. J. Condon in the district formed by the union of the towns of Templeton, Hubbardston, Royalston and Phillipston.

The towns of Brimfield, Brookfield, Chester, Douglas, Leicester, Longmeadow, Mendon, Upton, Uxbridge and Wilbra-

ham voted to accept the provisions of the law relative to the formation of union districts, and appropriated money for the employment of a superintendent; but, from one cause or another, unions were not formed. In most cases this failure was owing to some defect in the vote of the town, or to the fact that some town in each district to be formed failed to carry the vote in favor of the union. I expect that several additional districts will be formed the coming spring.

In closing, I briefly summarize the needs, most apparent to my mind, of the schools in this section of the State:—

1. Competent supervision extended to every town.
2. Professional training of every teacher required.
3. Certification of all teachers by State or county authority.
4. No monopoly allowed home talent in the employment of teachers.
5. School committees required to act together in selecting teachers.
6. In small towns, school committees reduced to three members.
7. A course of study for all schools.
8. A grading of the mixed or so-called ungraded schools.
9. Teachers' meeting at least once a month in all towns.
10. A truant school for Worcester County.

Respectfully submitted,

A. W. EDSON,

Agent.

WORCESTER, Dec. 31, 1889.

E.

REPORT OF G. T. FLETCHER,
AGENT OF THE BOARD.

REPORT.

To the Board of Education.

In my field of labor, comprising the counties of Berkshire, Franklin and Hampshire, the following towns have been visited for the purpose of school inspection during the year : —

BERKSHIRE COUNTY.

Adams, Becket, Cheshire, Egremont, Great Barrington, Hancock, Hinsdale, Lanesborough, Lenox, North Adams, Otis, Peru, Pittsfield, Richmond, Sandisfield, Sheffield, Stockbridge, Washington, West Stockbridge, — nineteen towns.

FRANKLIN COUNTY.

Ashfield, Buckland, Charlemont, Deerfield, Erving, Greenfield, Leyden, Montague, Northfield, Orange, Rowe, Shelburne, Wendell, Whately, — fourteen towns.

HAMPSHIRE COUNTY.

Amherst, Belchertown, Chesterfield, Easthampton, Granby, Greenwich, Hadley, Hatfield, Huntington, Middlefield, Northampton, Plainfield, Southampton, South Hadley, Ware, Williamsburg, Worthington, — seventeen towns.

Total, fifty different towns. By request of the school committee or teachers, quite a number of towns have been visited a second time. Since the 1st of September, 1888, all but ten towns of the three counties have been visited for school inspection.

In three-fourths of the towns visited during the year, half-day teachers' meetings have been held, and in more than half the towns evening lectures have been given upon educational subjects, including a discussion of the provisions and advantages of the law in relation to a union of small towns to secure more superintendents of schools.

I have been most cordially received by school committees, teachers and citizens. There appears to be an increasing interest in the public schools. The efforts of the State to provide means for the better training of teachers, through normal school instruction, teachers' institutes and superintendence, are, in many towns, inciting the people to do more to increase the educational advantages of their children. The plan of work, with statements of conditions noted, and suggestions of improvements made, is substantially as follows.

METHOD OF WORK.

With few exceptions, the schools of towns have been visited in company with the school committee. Attention has been directed to the condition of school-houses, out-buildings, furniture, apparatus and books, and to the method of school management and instruction. To discover deficiencies and errors in our schools is comparatively easy, to suggest and apply remedies is a more difficult task; but inspection must be helpful as well as critical, to be valuable to the schools. Teachers need the advice of those who have had a larger experience; hence methods of school work that may be useful to the teacher should be suggested, and better ways of doing class work may be profitably illustrated. Written suggestions left with the teacher for later consideration are helpful.

After visiting all or nearly all the schools of a town, an afternoon meeting has been held, attended by teachers and school committees, and sometimes by parents. These meetings have enabled the agent to commend good work and to recommend needed improvements. Sometimes the committee and teachers render the meetings more valuable by questions and experiences. In nearly all towns there are some teachers of much ability and large experience, who are able to impart most valuable information to those just beginning the teacher's work. Where monthly teachers' meetings are held by the committee, the standard of the schools is higher as a result. In many towns the teachers are practically strangers to one another, and almost to the school committee as a body.

The evening meetings during the year have been directed to an increase of interest upon the part of the people in their

schools, and to a presentation of the plan of a union of towns for the purpose of securing, through State aid, better superintendence of schools. The result has been most gratifying, a large proportion of the towns in which the subject has been presented voting favorably. A larger number of districts would have been formed had not the time for organization been limited to the month of April. Other towns give evidence of a determination to act favorably upon the question at the next annual meeting.

CONDITIONS NOTED.

A tendency to improve the school-houses is manifested. Narrow sheathing boards, painted in colors agreeable to the eye, are taking the place of dingy, cracked, broken plastering. Most houses have either blinds or shades for regulating the light; a few have neither. In some, provision is made for ventilation by means of a scuttle in the ceiling, boards in the windows, or registers opening into air spaces. Such means are of some value, if properly used, but they are entirely inadequate to insure proper ventilation. During the past season, in compliance with the law, a system combining heating and ventilation has been adopted in some of the larger towns. The plan promises better results, but much complaint is made regarding the expense. My observation leads to the conclusion that no system in use will insure an even temperature and pure air unless the teacher has some knowledge of the principles of ventilation, good judgment, and is faithful to duty.

FURNISHING.

More school-houses supplied with patent desks and seats, good black-boards, maps, charts and books of reference, are found each year. These things have an educating influence worth more than their cost; they cultivate taste, tend to secure better deportment, and are necessary appliances to insure physical comfort or to aid the teacher in the work of instruction. Too many school-houses are still destitute of most of the improvements mentioned, and the schools give painful evidence of the influence of unfavorable conditions, and of the present and future of the town.

OUT-BUILDINGS.

While improvement is to be recorded with reference to the sanitary and moral conditions of out-houses in some towns, there are others in which cleanliness and decency are not provided for by the school authorities. It is the duty of the committee to provide suitable accommodations for the pupils, and it is the duty of the teachers to make and enforce such regulations as will keep them in proper condition.

ATTENDANCE.

In quite a number of towns special efforts are made by the superintendent or the teachers to secure a high average of attendance, and the registers show excellent results. In some instances pupils are, undoubtedly, stimulated beyond their physical powers to attend school. In some cases the practice obtains of allowing pupils to be dismissed immediately after roll call, while they are regarded as present during the session, though absent from every recitation. Teachers and parents should not encourage such practice, which may work more injury to the children than the loss of schooling. Prompt and regular attendance is necessary, to secure substantial progress in school work.

An increase in the number of weeks in the school year, and of the number of years of school life, would be of great advantage to a large class of pupils, who are not receiving an adequate amount of schooling. The necessity of bread winning, the greed for gain, the poverty that comes through misfortune or intemperance, and the indifference of many parents to the rights of their children and to the welfare of society, are among the causes of non-attendance at school. Better schools and a better public sentiment will tend to remedy the evil.

METHOD OF INSTRUCTION.

The principles of teaching and method of instruction so clearly stated and illustrated by Secretary Dickinson in his institute lessons should be applied in all our schools. To secure this result, much must be done to improve the teaching force. It is evident that teachers are becoming more skilled in their work, through observation, study and experience.

Normal schools, institutes, educational literature and school supervision are doing a great work for the cause of education. While progress may be most evident in the cities and larger towns, much good work is done in small villages and rural towns, by faithful teachers whose work is not measured by the compensation received.

POOR SCHOOLS.

In too many towns there is a tendency to employ young, untrained, inexperienced teachers. The schools are small, the pupils not well classified, and books not adapted to their abilities and needs are in common use. Superior skill in the teacher is necessary to insure success under such circumstances, but the small pay does not draw the talent. With intelligent teachers, who have had training and success, much more can be done than is now accomplished, through the aid of skilful supervision. School committees report improvement in the quality of the teaching in their schools, through the influence of the district superintendent.

COURSES OF STUDY.

Hundreds of copies of the plan of work for ungraded schools, issued by the Board of Education, have been distributed among teachers in the rural towns. They have proved of great service in enabling the teachers to better classify their schools and to improve their teaching.

READING.

Improvement is noticed in this most important branch. The A, B, C method has been abandoned, and there are fewer examples of an exercise consisting of spelling out words, followed by repetition of them in a dreary monotone, showing inability to know words at sight and to comprehend their meaning. The practice is not yet abandoned in some schools, as the teachers have not heard of the better way.

While most reading is silent, and for the purposes of pleasure and information, there should be considerable oral reading in school, and for several reasons. It enables the teacher to know if the child reads understandingly, to instruct the child in the right method of learning to read, to impress upon the

child's mind the truth of the lesson, and to lead him to love and to select the best reading matter. Teacher and pupil must make special preparation for the reading exercise. There should be much silent reading, after which the teacher should test the class for results. Reading matter must not be beyond the child's comprehension. The high-grade reading books found in many schools make an evil which parents approve, and which teachers and school committees have not the courage to eradicate.

SPELLING.

This should be both oral and written, beginning with the first term of the child's school life. It has been proved by trial that oral spelling is an aid in learning to read and to spell. When the child has learned a word from the association of it with an object or from its use in a sentence, he is better able to retain and to recall that word, if he has learned to spell it by calling the letters. The reason is obvious, but the fact is sufficient warrant for the practice. It is wise to have some of the words spelled orally at the close of every reading lesson; it will induce the habit of noticing the spelling of words while studying the reading lesson.

The value of written spelling exercises cannot be too highly commended, as pupils learn to spell that they may be able to spell correctly when writing. The aim and effort of teachers should be to have the pupils learn to spell all the words used in ordinary correspondence. Only so many should be assigned for a day's lesson as can and will be learned, "to keep." Time spent in learning to spell words to-day that will be forgotten to-morrow, is wasted. Frequent reviews are necessary, and all the written work of the school should test the pupil's skill in orthography. No time can be profitably used in learning to spell uncommon words.

LANGUAGE.

Improvement in this important branch of study is quite generally indicated. Exercises that call into activity the powers of observation and perception are followed by others that develop facility and accuracy in oral and written expression of thought. The reading books may be used in a very

helpful manner to familiarize the pupils with good English. The principles and rules of technical grammar, so far as they have any intelligent application to the correct form and use of words, should be utilized by the older pupils; but proficiency in the use of language must be acquired, mainly, by much practice under the direction of a skilful teacher.

NUMBER WORK AND ARITHMETIC.

Number being the quality by which one is distinguished from more than one, objects of various kinds should be used in teaching children to know small numbers at sight, and to make all combinations possible with them to ten or more. The fundamental processes with small integral and fractional numbers may thus be acquired by children at an early age. Pupils pass readily from the concrete to the abstract, and to the use of figures to represent numbers. In mental and written work small numbers should be used with young children. Problems requiring thought processes to determine the method of solution are excellent for discipline of the mind, but they should be carefully graded to the ability of the pupils. The processes of arithmetic that are used in business life are restricted to the "fundamental rules," decimal and common fractions, U. S. money, weights and measurements, and to percentage in its various applications. Intelligent teaching will accomplish good results in this branch of learning, and save much time, now misused, for other important branches.

GEOGRAPHY AND HISTORY.

Considerable improvement is evident in the method of instruction pursued in these branches. Selection of the most important subject matter, logical arrangement of topics, intelligent use of maps, with an application of the objective analytic method of teaching, are means that have produced better results than were formerly secured.

TEMPERANCE INSTRUCTION.

There has been, within a year, much improvement in the quality of the text-books prepared for use in giving instruction in this new subject for school work. The teachers have had more experience in this line of duty; and, where intelligent,

earnest work has been done, pupils are found to have acquired some valuable hygienic information, and to have formed a determination to abstain from the use of intoxicants and narcotics. Many teachers need to give the subject more attention than it now receives, because of the requirements of the law and the good of society.

SELECTION AND EXAMINATION OF TEACHERS.

The success of the school depends principally upon the efficiency of the teacher. How shall the right persons be found and known? Those upon whom the duty of securing teachers for the schools devolves must realize the responsibility resting upon them. No other interest of the home and of society can equal that of the right education of the children, and it is a self-evident truth that the teacher should be a person of rare intellectual and moral qualifications. The influences of home and school determine, in large measure, the future of the individual and of the State. A law of the Commonwealth demands that school committees obtain satisfactory evidence of the good moral character, qualifications for teaching and governing, through a personal examination of candidates for the position of teacher. To secure the services of competent teachers is a task of no small magnitude. The State has wisely established and equipped normal schools for the training of teachers. The test of character, abilities and scholarship for admission to these schools is more severe than that applied in many towns in the examination of teachers for the public schools. The normal course of study requires from two to four years for completion, comprising those branches of learning pursued in the public schools of the Commonwealth, considered with special reference to the right method of study and teaching. The corps of instructors in these institutions is composed of the ablest teachers in the State; the diploma awarded to graduates is a certificate, from the highest authority, of scholarship and professional training. It is evident that the State normal schools are prepared to supply teachers admirably trained for efficient service. These persons have been educated at the expense of the State, and should be willing to teach, for a time, in the rural schools for a small compensation. The good to be done and the valuable

experience secured will prove an adequate remuneration for service that does not receive sufficient pecuniary reward. School committees should endeavor to secure more normal-school graduates.

Another class of efficient teachers is composed of persons who have improved their good native abilities by study, observation and successful experience in the school-room. Their services merit and receive a good compensation, and it is economy to employ them.

In some towns the law of the State regarding the examination of teachers is wholly disregarded. Teachers are often employed for reasons other than those pertaining to the good of the school. The moral character of the applicant is generally known or inferred, but maturity of body and mind, scholarship and professional training, are not duly considered. Under these circumstances a good school is hardly possible, and it is no wonder that parents and pupils lack interest in the schools, that houses decay, farms are abandoned, and population and valuation decrease. Said two prominent men from two "hill towns," "We are holding our own in population and wealth because of the excellent condition of our schools." Generally, in the large towns and in most of the small towns of western Massachusetts, the aim of the school committee is to secure the best teachers available for the compensation. Time is required to search for the best teachers, and special knowledge of modern school work is requisite to enable one to apply a proper test of fitness for managing and teaching school. For this reason, towns having a superintendent of schools possess marked advantages. The best teachers are found in such places, while the incompetent ones go where examinations are unknown, and where inspection of schools is not critical. In the election of school committees, citizens must take more interest and feel more responsibility. Parents must demand the employment of competent teachers, and then manifest their interest in the work of the schools by frequent visitation of them, and by a hearty support of the teachers in their work.

SCHOOL SUPERINTENDENCE.

This subject has been so fully treated in the recent reports of the State Board of Education, that there seems to be no

occasion for advocating this agency for the improvement of the public schools, at this time.

The wisdom of the law of 1888, which grants State aid to a group of towns formed for the purpose of securing better supervision of their schools, becomes evident to the people as soon as the measure is understood. At present there seems to be no other means by which the schools in the rural towns can be greatly improved. Small salaries render it impossible for school committees to secure the best teachers, hence those of less abilities must be employed temporarily, in some instances. But no one should be allowed to take charge of any school unless possessed of good natural abilities, and sufficient scholarship to teach all the branches required. Such persons, working under the direction of a skilled superintendent, may do good work, and, by observation in the best schools and a careful study of educational literature, become able teachers. Good supervision will necessarily increase the efficiency of the teaching force, and higher wages must be paid for better service. Anticipating this result of district supervision, the State wisely appropriated to each group of towns five hundred dollars to increase the salaries of the teachers.

TOWNS VOTING FOR UNION SUPERVISION.

Ashfield, Cheshire, Chester, Conway, Dalton, Deerfield, Easthampton, Erving, Hatfield, Lanesborough, Middlefield, Monroe, Orange, Rowe, Southampton, Sunderland, Wendell, Westhampton, Whately, Williamsburg, — twenty towns.

Some of these towns did not succeed in uniting with others to form a district. Others did not vote upon the subject, as the time allowed for action terminated before the advantages of the plan had been fully considered. This method for securing more superintendence of schools seems to be growing in favor.

SUPERVISION DISTRICTS FORMED.

Berkshire County. — A district formed by the union of the towns of Dalton, Cheshire and Lanesborough, having thirty-two schools. Earl Ingalls, Superintendent.

Hampshire County. — A district formed by the union of the towns of Easthampton, Southampton and Westhampton, — thirty-six schools. E. B. Maglathlin, Superintendent.

Hampshire and Franklin Counties. — A district formed by the union of the towns of Williamsburg, Conway, Whately and Sunderland, — thirty-nine schools. Justus Dart, Superintendent.

Franklin County. — A district formed by the union of the towns of Orange, Erving and Wendell, — thirty-one schools. State agent A. W. Edson, having previously visited the schools of these towns, presented the subject of supervision to the people, thus securing the formation of this district.

RESULTS OF DISTRICT SUPERVISION.

The plan has been in operation less than six months, hence great results are not to be expected, though signs of improvement are to be looked for. Parents are showing greater interest in the schools than usual, and school committees more knowledge of the work accomplished by the teachers. Courses of study, classification of pupils, and improvement in school management, render the work of the teachers more profitable than formerly. Systematic and frequent visitation of all the schools, according to their needs, by one whose experience and skill enable him to discern readily the quality of the work being done, and to aid the teacher in securing better results, is the means by which advancement has been secured. Frequent teachers' meetings have enabled the superintendent to present and explain his plans for securing better work, and to so instruct the teachers as to secure their intelligent co-operation. Much work must be done along these lines, and years will be required to bring the schools up to the standard that they should reach. Many obstacles are to be overcome. Small schools, widely scattered; lack of funds for buildings, appliances and teachers' salaries, render the labors of the superintendent arduous, but all the more necessary. He must be a man of much intelligence, large experience, great tact and indomitable energy. Such a superintendent merits the hearty support of teachers and citizens. The plan is wise; let not prejudice or a short-sighted policy defeat its success.

I have visited schools and held teachers' meetings with the superintendents in the districts mentioned, taking much pains to ascertain, from personal observation and inquiries of the teachers and school committees, the character and results of

the work being done by the superintendents. I feel confident that the men working in these new fields are doing much to improve the condition of the schools.

The towns of Adams, North Adams and Pittsfield have maintained, for several years, training schools to prepare teachers for their work; Northampton and Easthampton have provided such schools the past year. The plan enables the towns to provide teachers for the lower grades of the schools from the ranks of the high-school graduates. The instruction lacks the breadth and thoroughness of normal-school training, but it prepares the pupil-teachers to do very good work, especially in the primary schools. The various agencies employed by the State and the towns to increase the efficiency of the public schools are producing results that must prove of great value to the children of the Commonwealth.

G. T. FLETCHER.

F.

INDUSTRIAL DRAWING.

REPORT OF HENRY T. BAILEY,
AGENT OF THE BOARD.

REPORT.

To the Board of Education.

Industrial drawing is gaining ground in Massachusetts. During the past year my correspondence has more than doubled. Some towns have introduced drawing for the first time; many others have revised their course in this department or adopted a new one; and in those places where drawing has long been taught, greater attention is given to objective methods of teaching. This unusual interest in the subject seems largely due to the fact that in no period of the State's history have its teachers been so generally interested in the study of their work.

In Mr. Martin's report of last year, speaking of drawing, he said, "In no department of school work have educational theory and practice been more happily combined;" and, because this harmony is so evident, and the application of the principles to the teaching of this subject so simple, teachers throughout the State have turned their attention to the development of their pupils' minds through industrial drawing.

In many places may be found enthusiastic teachers, pursuing the study under great disadvantages. Some have purchased clay, paper, models, etc., at their own expense; and, without the aid of school committees, sometimes even without their sympathy, have secured good results, both to their pupils and to themselves. These faithful teachers are doing yet more, — they are gradually enlightening the minds of many people who attach no importance whatever to the Act of 1870.

The interest centres largely in the primary-school work. Clay moulding, paper cutting, stick laying and other occupations derived from the kindergarten furnish fruitful themes for discussion at teachers' meetings. The objective work so admirably commenced in the lower grades should be continued in the upper grades. In some cities and towns this is done;

notably, where a special teacher or supervisor of drawing is employed. Where the work receives no supervision, the state of things is quite accurately described by the words of Prof. Walter Smith, in his report of 1873. He says: "I find the admirable skill of the teachers very much hampered by want of a progressive and simple plan of instruction, and of examples with which to give their lessons; and the general absence of confidence in their own powers, arising from their having had little or no instruction in the art." He adds: "The hinderances referred to present no very serious obstacle to the progress of art education, because they are removable at will, by the provision of a comprehensive scheme of instruction, and the education of qualified special teachers." Where these qualified special teachers have been introduced, a comprehensive scheme of instruction has followed, and art education has advanced.

The following table will show to what extent the cities and towns are employing a special teacher or supervisor of drawing. The required information was obtained directly from the superintendents or committees of the towns, during November and December.*

* Industrial drawing is now taught in two hundred and one cities and towns in the Commonwealth, one hundred and nineteen of which make use of models and objects in some or all grades. As all the cities but one are included, nearly eighty-nine per cent. of the entire school population receive some instruction in drawing.

Special Teachers and Supervisors of Drawing in Massachusetts, Dec. 31, 1889.

CITY OR TOWN.	Name of Person Employed.	How Occupied.	Term of Service.	Preparation.	Address.
Belmont, . . .	Mary L. Burlbank, . . .	Teacher in grammar and high, . .	2 yrs.	Special instruction, . . .	Waverley, Mass.
Boston, . . .	Henry Hitchings, . . .	Director, all grades, . . .	9 yrs.	Special instruction, . . .	Dedham, Mass.
Brockton, . . .	Mary B. Titcomb, . . .	Supervisor, all grades, . . .	2 yrs.	State Normal Art School, . . .	Brockton, Mass.
Brookline, . . .	Martha A. Hurlbut, . . .	Supervisor, all grades, . . .	1½ yrs.	State Normal Art School, . . .	Brookline, Mass.
Brookline, . . .	Sumner B. Merrick, . . .	Instructor in high school, . . .	6 mos.	Institute of Technology, . . .	36 White St., East Boston.
Cambridge, . . .	Walter F. Brackett, . . .	Supervisor, all grades, . . .	6 mos.	State Normal Art School, . . .	Winchester, Mass.
Chelsea, . . .	Elizabeth H. Perry, . . .	Supervisor, all grades, . . .	1½ yrs.	State Normal Art School, . . .	111 Pembroke St., Boston.
Chicopee, . . .	Josephine L. Hartwell, . . .	Supervisor, all grades, . . .	3 mos.	State Normal Art School, . . .	Chicopee, Mass.
Concord, . . .	Jessie N. Prince, . . .	Supervisor, all grades, . . .	2 yrs.	State Normal Art School, . . .	Dedham, Mass.
Dedham, . . .	Annie R. Shafter, . . .	Supervisor, all grades, . . .	2½ yrs.	State Normal Art School, . . .	Dedham, Mass.
Fall River, . . .	Lucelia A. Kimball, . . .	Supervisor, all grades, . . .	-	State Normal Art School, . . .	Fall River, Mass.
Fitchburg, . . .	William Briggs, . . .	Supervisor, all grades, . . .	7 yrs.	England, . . .	Fitchburg, Mass.
Framingham, . . .	Charlotte A. Kondall, . . .	Supervisor, primary and grammar, . .	2 yrs.	State Normal Art School, . . .	Framingham, Mass.
Gloucester, . . .	Carrie H. Sawyer, . . .	Instructor in all grades, . . .	15 yrs.	Private institutions, . . .	Gloucester, Mass.
Greenfield, . . .	Mary H. Pratt, . . .	Instructor in all grades, . . .	6 mos.	Private institutions, . . .	Greenfield, Mass.
Holden, . . .	Frank J. Darrah, . . .	Instructor in high school, . . .	1 yr.	- - -	Worcester, Mass.
Holyoke, . . .	Mrs. E. M. Ferry, . . .	Supervisor in all grades, . . .	2 yrs.	Westfield Normal and Smith College, . .	Easthampton, Mass.
Lawrence, . . .	Henry W. Poor, . . .	Supervisor in all grades, . . .	2 yrs.	State Normal Art School, . . .	Lawrence, Mass.

Special Teachers and Supervisors of Drawing in Massachusetts, Dec. 31, 1889 — Concluded.

City or Town.	Name of Person Employed.	How Occupied.	Term of Service.	Preparation.	Address.
Lowell, . . .	Olive E. Underhill, . .	Supervisor, primary and grammar, .	2 yrs.	Salem Normal, and private instructor,	Lowell, Mass.
Lynn, . . .	Nathaniel L. Berry, . .	Instructor in all grades, . . .	3 yrs.	Special instruction, . . .	Lynn, Mass.
Malden, . . .	L. Rena McLaughlin, . .	Supervisor, primary and grammar, .	3 mos.	State Normal Art School, . . .	Malden, Mass.
Medford, . . .	Georgia L. Norton, . .	Instructor in high school, . . .	4 mos.	State Normal Art School, . . .	West Newton, Mass.
Melrose, . . .	Elizabeth Creveling, . .	Supervisor, all grades, . . .	3 mos.	State Normal Art School, . . .	151 Worcester St., Boston.
New Bedford, . .	Arthur J. Cummings, . .	Instructor in high school, . . .	15 yrs.	England, . . .	New Bedford, Mass.
New Bedford, . .	Adelaide B. Hyde, . .	Supervisor, primary and grammar, .	4 mos.	Special instruction, . . .	New Bedford, Mass.
Newton, . . .	Ida L. Collins, . . .	Supervisor, all grades, . . .	1 yr.	State Normal Art School, . . .	Newton Highlands, Mass.
Newton, . . .	Martha M. Dix, . . .	Special, grammar grades, . . .	-	State Normal Art School, . . .	West Newton, Mass.
Newton, . . .	Alice E. Macomber, . .	Instructor in high school, . . .	1 yr.	State Normal Art School, . . .	Newtonville, Mass.
North Adams, . .	Arthur W. Scribner, . .	Supervisor in all grades, . . .	5 yrs.	State Normal Art School, . . .	North Adams, Mass.
North Attleborough, .	Emma A. Asbrand, . .	Supervisor in all grades, . . .	3 mos.	State Normal Art School, . . .	Chelsea, Mass.
North Brookfield, .	Nellie M. Mahoney, . .	Supervisor in all grades, . . .	2 mos.	State Normal Art School, . . .	North Brookfield, Mass.
Pittsfield, . . .	Inez V. Kellogg, . . .	Instructor, primary and grammar, .	-	- - -	Pittsfield, Mass.
Quincy, . . .	Jessie N. Prince, . . .	Supervisor, all grades, . . .	3 yrs.	State Normal Art School, . . .	Dedham, Mass.
Randolph, . . .	Ellen P. Harvey, . . .	Instructor in teachers' meetings, .	2 mos.	Prang's Normal Drawing Class, .	Randolph, Mass.
Somerville, . . .	Lizzie A. Herrick, . . .	Supervisor, all grades, . . .	1 yr.	State Normal Art School, . . .	Somerville, Mass.
Southbridge, . . .	Jennie E. Chamberlain, .	Instructor, all grades, . . .	4 yrs.	Private institutions, . . .	Globe Village, Mass.
Springfield, . . .	Luella E. Fay, . . .	Supervisor, all grades, . . .	10 yrs.	Special instruction, . . .	Springfield, Mass.

Springfield,	.	Jeanne J. Stutz,	.	Instructor, freehand, high school,	.	9 mos.	Academy of Fine Arts, Naples,	.	Springfield, Mass.
Springfield,	.	E. C. Klipstein,	.	Instructor, mechanical, high school,	.	1½ yrs.	St. Louis Manual Training School,	.	Springfield, Mass.
Walpole,	.	Mary E. Anderson,	.	Supervisor, all grades,	.	1 mo.	State Normal Art School,	.	West Roxbury, Mass.
Waltham,	.	Geo. E. Morris,	.	Supervisor, all grades,	.	5 yrs.	State Normal Art School,	.	Waltham, Mass.
Warren,	.	Ella Wentworth,	.	Instructor, primary and grammar,	.	4 mos.	Private institutions,	.	Warren, Mass.
Watertown,	.	Blanche I. George,	.	Supervisor, all grades,	.	4 mos.	State Normal Art School,	.	141 West Newton St., Boston.
Wellesley,	.	W. Bertha Hintz,	.	Instructor, all grades,	.	2 yrs.	State Normal Art School,	.	248 Newbury St., Boston.
Winchester,	.	Wm. A. England,	.	Supervisor, all grades,	.	6 mos.	State Normal Art School,	.	616 Washington St., Boston.
Woburn,	.	Willis S. Carter,	.	Supervisor, primary and grammar,	.	4 mos.	State Normal Art School,	.	North Woburn, Mass.
Worcester,	.	Jeannie L. Southwick,	.	Supervisor, all grades,	.	2 yrs.	Private institutions,	.	Worcester, Mass.
Worcester,	.	Frank J. Darrah,	.	Instructor in high school,	.	-	-	-	Worcester, Mass.

Results in drawing are so much more satisfactory, as a rule, under skilled supervision, that there is an increasing demand for supervisors. The above table shows that some towns have employed a special teacher this year, for the first time. Other towns in the State are considering the matter, the cost being the only obstacle. Good results may be secured in some schools without the help of a supervisor, but not uniform results throughout the schools of a town. There is no valid reason why two or more adjacent towns should not unite and secure the services of some person to assist them. Such a person may be had for a reasonable compensation, by applying to the principal of the State Normal Art School, — an institution which the State has established for the express purpose of training teachers to do this work.*

If a special teacher *is* employed, the best results can be secured only when the regular teachers teach the pupils. He may plan the work, assist the teachers, encourage the pupils, but he cannot reach the individual pupil, and watch over the growth of his mind; this must be the work of the regular teacher.

A summary of my work since the date of the previous report shows:—

Number of visits to cities and towns,	129
Number of different cities and towns visited,	69
Number of schools visited,	268
Number of teachers' meetings held,	67
Number of State institutes attended,	15
Number of exhibitions inspected,	8
Number of visits to normal schools,	6

* By reference to the foregoing table of special teachers and supervisors, it will be seen that, of the forty-six now employed in the schools of the State, twenty-six were trained at the State Normal Art School. Different institutions are represented as follows:—

State Normal Art School,	26
Private institutions (not named),	6
Special private instruction,	5
English schools,	2
Massachusetts Institute of Technology,	1
Smith College,	1
Academy of Fine Arts, Naples,	1
St. Louis Manual Training School,	1
Prang's Normal Drawing Classes,	1
Unknown,	2
Total,	<hr/> 46

EXHIBITIONS.

February 27, the free evening drawing school, Waltham, made an exhibit of the regular work of the pupils of the several classes, so arranged as to graphically outline the course pursued. Much credit is due Mr. Geo. E. Morris, the principal of the school, for the logical arrangement of the subjects in the course, and for the practical character of the work. The most noteworthy feature of the exhibit was the series of sheets showing the thoughtful study given to representing the breadth of light and shade upon natural objects, preparatory to more advanced work.

An informal exhibit of the work of the Chelsea evening drawing school was held during the first week in April. Here, as at Waltham, the sheets were arranged to illustrate the course. Considering the fact that the school had been re-organized and put into new hands at the beginning of the year, the results shown were certainly commendable. Mr. Wm. L. Judkins, who has charge of the school again this season, will show improved work each succeeding year.

June 19, I had the pleasure of inspecting a small exhibit prepared for the school committee of Fall River, by Miss Kate Shattuck, the supervisor of drawing. This outlined the work through all grades of the schools below the high school, and included clay moulding, paper cutting, stick laying, outline drawing from geometric solids and objects based on them, dictation and memory drawing and design. The results obtained by the regular teachers, under the direction of the supervisor, were especially praiseworthy in the object drawing. The recent resignation of Miss Shattuck is deeply regretted.

June 21, an extensive exhibit of drawing, sewing, writing and manual training, in Springfield, was visited. This exhibit attracted people from all parts of this State and from neighboring States. In no other Massachusetts city has the work of the kindergarten, the public school and the manual training school been more harmoniously and satisfactorily related. The portion of the exhibit devoted to drawing reflected credit upon Miss L. E. Fay, the supervisor, because of its original plan of arrangement; and upon teachers and pupils, because

of the attractive neatness and thoughtfulness with which the plan was executed. The designs exhibited by the upper grammar grades were correct in principle, original in conception and beautiful in color.

June 22 was the date of opening the drawing exhibit in Holyoke. Mrs. E. M. Ferry, the supervisor, exhibited unusual skill in arranging the pupils' work. The clay forms of each class were prettily grouped in the tin moulding trays, appropriately decorated for the occasion; the colored-paper designs of the upper grades were fitted upon the panes of the windows, and the light falling through them, subdued by their carefully selected colors, produced a very pleasing effect. The drawing of natural objects, the colored-paper work, and the elementary light and shade in the high-school section, were particularly worthy of note.

An exhibit of the pupils' work in the Quincy high school was inspected June 24. It was characterized by bold, free-hand model and object drawing in outline and light and shade, accurate mechanical work from architectural and machine details, crisp water-color sketches from still life, and admirable pencil sketches from nature. Miss Jessie N. Prince has charge of drawing in this and all other schools in Quincy.

During the latter part of June, the Lincoln school, Brookline,—a typical modern school, of the better class,—exhibited specimens of the material results of drawing, sewing, cooking and manual training. This exhibit, attractively arranged in the fine assembly hall, called forth the warmest praise from all who visited it. Miss Martha A. Hurlbut is in charge of drawing in Brookline.

The annual exhibition of drawing from the public day and evening schools of Lawrence, occurring this year during the week beginning June 24, was announced by the supervisor, Mr. Henry W. Poor, by means of a neatly printed circular, stating its scope and character. The exhibit was, as usual, largely attended. Much admirable work was shown, especially in the upper grammar and high-school grades. Throughout the exhibit, the color, both in designs and sketches, attracted the attention it so richly deserved.

Other exhibits have occurred in the State, which, I regret to say, have not been visited, for lack of time.

Good exhibitions are of great value to good teachers and an interested public. They encourage, they suggest, they educate. Now that we have come to agree that an exhibition of drawing should show not what pupils can do, but what they have done, there should be more of them. A State exhibit, to include the entire range of work between the kindergarten and the State Normal Art School, would be of value to all supervisors and teachers of drawing, would be welcomed by the public, and would exert a beneficial influence.

THE STATE INSTITUTES.

I have presented the subject of drawing to the teachers at State Institutes in the following places : —

Wilmington,	Edgartown,
Monson,	Peabody,
Grafton,	Mattapoisett,
Baldwinville,	South Yarmouth,
Gardner,	Kingston,
Huntington,	Newton,
Norwood,	South Acton.

The aim has been to simplify the work as much as possible, to state the order of subjects logically, and, by illustrating every step, to make the method of presenting each subject perfectly evident. In many cases the primary work only has been considered ; this has been based upon the following outline : —

DRAWING IS THE LANGUAGE OF FORM.

A *language* is a means of expressing ideas.

The *language of form* is that means by which the shapes of objects are expressed. Pupils should be encouraged to make constant use of this language to express their ideas in all other subjects.

All forms may be referred to certain *types*. These type forms should be first *observed*, and ideas of them *expressed*.

Objects should be observed first as *wholes*, their *parts* considered next, then the *relations* existing between the parts and the whole, and between different parts.

The expression at each step should correspond with the observational work. The primary work, then, may be according to this general plan : —

TYPE FORMS.							Means of Expressing.
Order of Observing.							
Wholes,	.	.	.	.	.	.	Clay.
Parts,	.	.	.	.	.	.	Clay, paper, sticks.
Relations,	.	.	.	.	.	.	Clay, paper, sticks, lines.

GENERAL OUTLINE.

Type Forms, studied Analytically.

WHOLES.	PARTS.			RELATIONS.
1. Sphere, . . .	4. Hemisphere.	7. Surface.		Plane and curved.
2. Cylinder, . .	5. Half cylinder.	8. Edges.		Straight and curved.
3. Cube, . . .	6. Half cube.	9. Corners.		Positions and distances.

After each new subject is studied, an application follows; viz., some object based on the type.

While pupils are thus studying form, they should receive a certain training, preparatory to drawing. This includes a knowledge of—

- | | | |
|-----------------------|---|---|
| (1) <i>Positions.</i> | { | a. Body (erect, facing desk). |
| | | b. Pencil (held two or three inches from point, and at right angles to line to be drawn). |
| | | c. Paper (edges parallel with those of desk; not turned at will, during exercise). |
| (2) <i>Movements.</i> | { | a. Free (in any and all directions). |
| | | b. Precise (class working in unison). |
| | | c. Thoughtful (to precede the drawing). |

When pupils have analyzed these type forms, and expressed their knowledge at each step by the use of clay, paper, sticks, etc., they are ready to draw these now familiar forms.

Drawing is, to a certain extent, a synthetic process; for, to fix the size and proportion of a drawing, points are placed on the paper (later, perhaps *thought*, only).

Points define positions of lines.

Lines represent edges (or outlines) bounding a visible surface.

These lines combined form a—

Geometric figure, which, in turn, represents one view of a solid.

Combined geometric figures express all the facts of the solid; and, finally,—

A picture gives an idea of the whole solid in one view; and the picture most easily drawn and apprehended by the pupil is that of a sphere resting upon a plane surface.

The plan for the continued study of the type forms now becomes evident.

PRIMARY OUTLINE, CONTINUED.

After a brief review of previous work, including practice in judging distances, drawing in unison from dictation, etc., the lessons may continue as follows:—

TYPE FORM.	Derived Geometric Form.	Related Parts of Geometric Figures.
10. Half cube (triangular prism), .	Triangle,	Base, apex, altitude.
11. Cube,	Square,	Diameter, diagonal.
12. Half cylinder, .	Oblong (lines representing edges),	Diameter, diagonal.
13. Cylinder,	Oblong (some lines representing outlines).	
14. Hemisphere,	Circle (line representing an edge),	Semicircle, quadrant, diameter, radius, chord, arc, centre, etc.
15. Sphere,	Circle (line representing an outline),	

This outline * was fully illustrated by means of clay work and charts containing paper and stick work, drawings and constructed objects, kindly furnished by Miss Prince, supervisor of drawing in Quincy and Concord, and the teachers of Easton.

* In this outline only the essentials of a complete course for thoroughly graded schools have been considered; viz., the *type forms* (sphere, cylinder, cube) and their primary *divisions* (hemisphere, half cylinder, half cube), omitting entirely their secondary divisions, and the variations from the type forms. The complete outline for the study of the type forms is as follows:—

FIRST YEAR:—

The Type Forms and their Primary Divisions.

Sphere,	Hemisphere.
Cylinder,	Half cylinder.
Cube,	Half cube.

SECOND YEAR:—

The Type Forms, their Divisions and Derived Forms.

Sphere,	Hemisphere.
Cylinder,	Half cylinder, — Plinth.
Cube,	Half cube, triangular and square prisms.

THIRD YEAR:—

The Type Forms, their Divisions and their Variations.

Sphere,	$\left\{ \begin{array}{l} \text{Review of sec} \\ \text{ond-year work.} \end{array} \right\}$	$\left\{ \begin{array}{l} \text{Ellipsoid.} \\ \text{Ovoid.} \\ \text{Cone.} \\ \text{Pyramid.} \end{array} \right\}$
Cylinder,		
Cube,		

NOTE.—In an appendix will be found an outline of one division of this form study, as continued in the grammar grades.

In addition, illustrative exercises have been given, to show how the principles of teaching are applied in form and clay lessons, dictation exercises, drawing from objects when two dimensions only are to be represented, and when three dimensions are to be indicated, as in perspective drawing.

The effects of this institute work might be made more lasting, if the teachers could be supplied with a printed outline of the subjects to be taught, with references to such books and materials as would assist in furnishing further information and suggestion.

THE TEACHERS' MEETINGS.

These have been continued upon the same plan, substantially, as that outlined in the report of last year.

The subjects called for have been, invariably, those involving the use of models and objects, form study, clay moulding or object drawing. Object drawing especially presents peculiar difficulties to a majority of teachers: first, because of lack of suitable illustrative material; second, because, when the materials have been furnished, their proper arrangement in the room — so that all pupils may see them equally well — seems impossible; third, when proper materials have been suitably placed, neither pupils nor teachers seem to know just what to do next. The usual direction at this juncture, is, “Draw what you see!” and the usual result is, what the pupils did not see.

A word about each of these points of difficulty may not be amiss.

1. *Materials.* — Unquestionably the best materials to be used in the first steps in object drawing are those especially prepared for the purpose. These may now be obtained at a moderate cost, through any dealer in school supplies. They should be furnished by the towns. Section 1 of the free textbook law of 1884 reads: “The school committee of every city and town shall purchase, at the expense of said city or town, text-books and other school supplies used in the public schools.” Usually committees are ready to purchase the required material, as soon as they are sure it will be *used*. An enthusiastic teacher seldom fails to obtain all he needs. If the committee refuses to grant his requests, he appeals to his pupils, who gladly furnish marbles, balls, etc., for spheres;

sage boxes, spools, tin cans and rollers, for cylinders; alphabet blocks, boxes and dice, for cubes. With these to illustrate the type forms, and with numerous objects based upon these, the work may be commenced upon a substantial basis; and with each additional lesson will come a broader knowledge, a higher skill and a deeper interest in the art. A teacher who persistently pursues such a course as this, will soon persuade the committee to lend a hand.

2. *Placing Objects preparatory to Object Drawing.*—Three plans for doing this have been successfully tried. The first and second necessitate a liberal supply of models of convenient size, for each pupil; the third requires a half-dozen large models of each sort studied.

I. Fig. 1 is a plan of a portion of the school-room. A, B, C, etc., indicate positions of pupils; a, b, c, indicate positions of models. Thus A's model is upon B's desk, B's model on C's, etc., at such a distance from the pupil that it may be easily studied, and measured by means of the pencil or wire held at arm's length. The

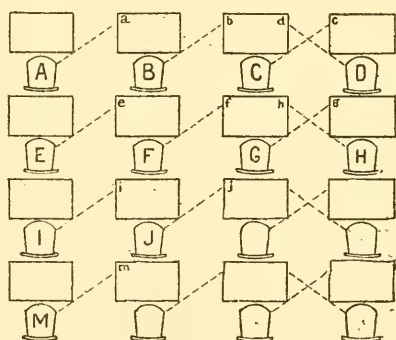


Fig. 1.

pupils at the extreme right may experience some inconvenience at first, but will soon become accustomed to the positions. This plan works well; for the excessive foreshortening, which occurs when the model is placed directly in front on the pupil's own desk, is entirely obviated.

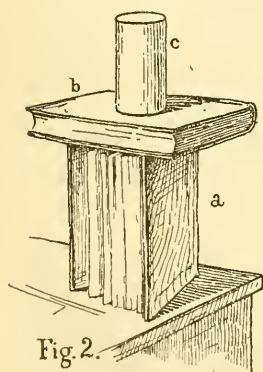


Fig. 2.

II. A well-bound book (a) is partly opened and placed upon the upper corner of each pupil's own desk, in the position indicated in the sketch. Upon this another book (b) is placed. This serves as a rest for the object or model (c), which is now raised to such a height that the foreshortening is normal.

III. A broad, movable shelf, supported by cleats, is fitted between the front desks at the end of each aisle (Fig. 3).

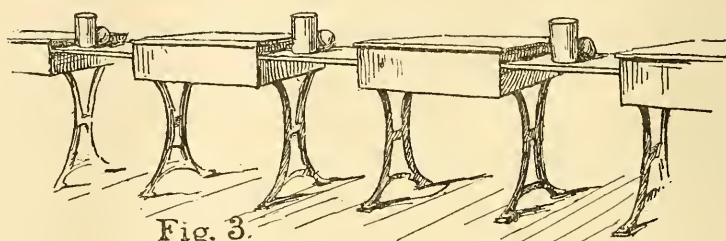


Fig. 3.

Upon these shelves duplicate models, objects or groups are placed. These, being of large size, are easily seen by

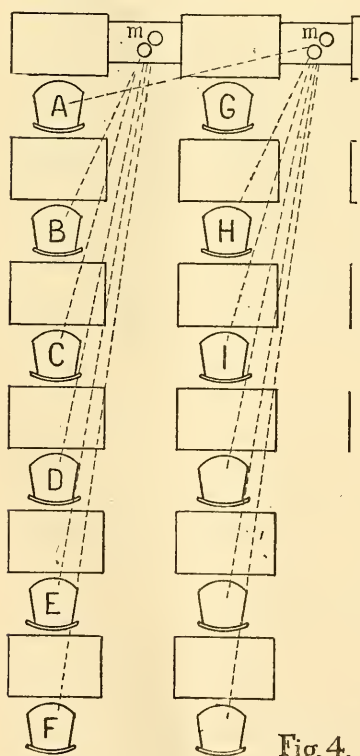


Fig. 4.

nearly all the pupils, as indicated in Fig. 4. A, B, C, etc., indicate positions of pupils, — m, the model object or group. All pupils except those in the front row have, approximately, the same view of the models. Those in front (A, for example) must draw from the group in the next aisle, and so have a different view to represent. When following this plan, it is evident that those pupils requiring the least help should occupy the front seats.

Many teachers think it best for each pupil to draw from his own model resting upon an adjustable support of some sort, upon his own desk. Then, and then only, will uniform work be obtained from the entire class.

3. *Method.* — Model and object drawing, or perspective drawing, is not perspective. Perspective makes use of a picture plane, ground line, horizon, vanishing points, measuring points, centre of vision, etc. Model drawing makes use of

none of these terms; and, when forced into use in connection with elementary work, they simply perplex and mystify the young student.

Three fundamental laws govern the representation of the appearance of forms:—

- I. Distance decreases the apparent size of an object.
- II. That which is seen obliquely appears foreshortened.
- III. Retreating parallels appear to converge.

The first deals primarily with the *whole* solid; the second, largely with the principal *parts* of the solid,—its surfaces; and the third, with the *relations* which its edges or outlines hold to the solid and to one another. Evidently, then, the foreshortening of the circle is not the first subject to be considered in model drawing.

The training preparatory to model drawing begins in the lowest grade primary, where the children are taught to sketch lines confidently with a free movement; it is continued during the second year, when they are taught to distinguish between light and dark lines, or sketched and drawn lines, and to judge distances and angles accurately. During the third year they are taught to see masses, and to know that lines represent outlines as well as edges.*

During the fourth year, when representation of the appearance of forms, commonly called model and object drawing, should begin, the pupils are taught the use of a thread, or, better, a wire, to cover edges and obtain roughly the principal proportions. During the fifth year, pupils are taught the use of the pencil in proportional measurement. From this on they are so trained that they may become skilful in *seeing*, in using these aids to assist the eye in presenting to the mind correct images of what it sees,—images free from the distortion often caused by a previous knowledge of the actual facts of

* For example, in making a geometric drawing of a mucilage bottle with its brush, the pupils first observe the general shape of the whole,—triangular,—then the principal divisions of the whole mass. The children are led to observe the general shape—mass—of objects about them, and to know that some objects present entirely different shapes in different views. Here the glass plane, the tracing screen and shadows obtained by holding the object in sunlight, often assist in making clear the meaning of mass.

form. In short, model drawing simply trains the pupil to *see*, and to *tell the truth* about what he sees. The method, then, is the same as that to be employed in all other observation lessons, namely : —

First, the *whole* form, — the *mass*.

Second, the *parts* of the form, — the *subdivisions of the mass*.

Third, the *relations* of these parts to the mass and to each other, and the *detail*.

If this order is persistently followed in every case, whether a single model or object is to be represented, or a group, pupils will have received a training in the right direction, whether the results on paper are at first satisfactory or not. In this connection it might be well to remember the words of Walter Smith, spoken ten years ago in the Boston Normal School : —

Whatever may be the character of the exercises made by pupils, the only results of any value arising from teaching drawing in the public schools are to be found in the minds of the pupil, not on their drawing paper. The subjects taught, and text-books or examples used, are only opportunities for giving or obtaining useful information, or to develop, by practice, a certain amount of that which is sometimes wrongly called *manual* skill, on the same plane as the mental perception. I purposely say “wrongly called;” for manual skill, as distinct from intellectual perception, or as being in a different stage of development from it, does not exist.

In an appendix will be found an outline of a course in model and object drawing, with notes and illustrations.

THE SCHOOLS.

In the ungraded and partially graded schools of the smaller towns the dearth of appliances and lack of method still prevail; but there are signs of improvement, especially in the newly formed “union districts.” In schools long enjoying the blessings of supervision, there has been a more generous expenditure for drawing materials than ever before. Better methods are prevailing. Drawing is being considered as an educational factor of no small importance. The revival of object drawing and sketching has revealed to many teachers that drawing is a

language, to be employed in other studies. In some schools the language and number lessons are illustrated ; so are observation lessons, physiology, botany, geography and history. The pupils diagram their problems in arithmetic, algebra and geometry. All these applications of drawing serve to popularize it, and to make the ability to sketch well, desirable. This ability is acquired only by persistent practice. The first attempts of pupils in the lowest grade primary should be encouraged. In the grammar schools each pupil should have a sketch book, and a certain number of sketches should be expected from him each month.

Encourage the pupils to sketch, not only from models and geometrical objects, but from natural forms : from twigs, buds, leaves, flowers and fruit, shells, animals, — from anything they choose. The amount of observation demanded of the pupil when drawing a spray of any plant, from nature, is tenfold that demanded in drawing a cylinder or a cube, or any other machine-made block. The drawing of models is all-important as a foundation ; for often, in studying complex forms in nature, the perspective changes are so subtle that, unless the pupil's observation is backed by a knowledge of principles, those elements which contribute beauty to the object, and charm to its representation, are entirely overlooked. By all means, let us have the models first, but not forever. Let us quit our finger exercises, and try to play something occasionally. It will stimulate us to more persistent practice.

Nearly every course of study in drawing, in those places where supervisors or special teachers are employed, has been revised or modified during the past year. This indicates that few, if any, of those actively engaged in teaching, are satisfied with present attainments. The best course of them all is considered as tentative only, and, like railroad schedules, “ subject to change without notice.”

Anything like a definite course in industrial drawing, which shall be generally conceded as adapted to developing logically the pupils' powers without loss of time or waste of energy, which shall refine his taste and elevate his character, is yet a thing of the future. Let us hope that, from the chaotic mass of elements now to be found in the schools of the Commonwealth, derived from all imaginable sources, comprising dot

systems, net works, forms, sticks, splints and “men,” clay work, paper folding and cutting, tablets and copies, dictation exercises, rules and erasers, geometric drawings and developments, movement exercises, object and memory drawings, designs, knife work and gauge work and instrumental work, historic ornament and color, sewing, pasting, stringing, weaving and carving, — from all these, something may in time be evolved which shall be accepted as ideal.

HENRY T. BAILEY.

NORTH SCITUATE, MASS., Dec. 31, 1889.

G.

OUTLINE

OF A

COURSE IN MODEL AND OBJECT DRAWING FOR
THE PUBLIC SCHOOLS.

WITH NOTES AND ILLUSTRATIONS.

By HENRY T. BAILEY,

AGENT OF THE BOARD.

OUTLINE

OF A

COURSE IN MODEL AND OBJECT DRAWING FOR THE PUBLIC SCHOOLS.

Year of School.	Preliminary Work.	Principles to be Taught.	Type Models.
PRIMARY.	1. Free movement. Sketching lines confidently.		
	2. Light and dark lines. Judging distances and angles.		
	3. Seeing masses. Whole forms bounded by edges, outlines or imaginary lines.		
GRAMMAR.	4. Use of wire to cover edges, touch corners, etc.	<i>Effects of Distance.</i> Representing solidity (indicating the third dimension).	Sphere and spherical forms, ellipsoid and ovoid.
	5. Proportional measurement with pencil and wire.	<i>Foreshortening.</i> Effect of height. Tangent union of elements.	Hemisphere, cylinder, cone.
	6.	<i>Convergence.</i> a. Bounding vertical plane. b. Bounding horizontal plane. c. Bounding two or more planes. 1. Equally foreshortened. 2. Unequally foreshortened. d. Unequal planes, unequally foreshortened.	Half cylinder, cube, square prisms, plinths.
	7.	<i>Relation of Diagonals.</i> To test work. To find centres.	Cube, half cube, triangular prisms, pyramid.
	8.	<i>Relation of Axes.</i>	Ellipsoid, ovoid, cone, cylinder, pyramid.
	9.	<i>Breadth of Light and Shade.</i>	All objects.

A supplementary course for the high school would include a review of these principles, and applications of them in more complex objects ; a study of the principles underlying light and

shade drawing; and, lastly, a study of the principles governing the representation of the color of objects. The aim of such a course in model and object drawing should be to train the observing powers of the pupil, and to teach correct principles and their applications, so that pupils shall be able to sketch from nature, and appreciate a good drawing.

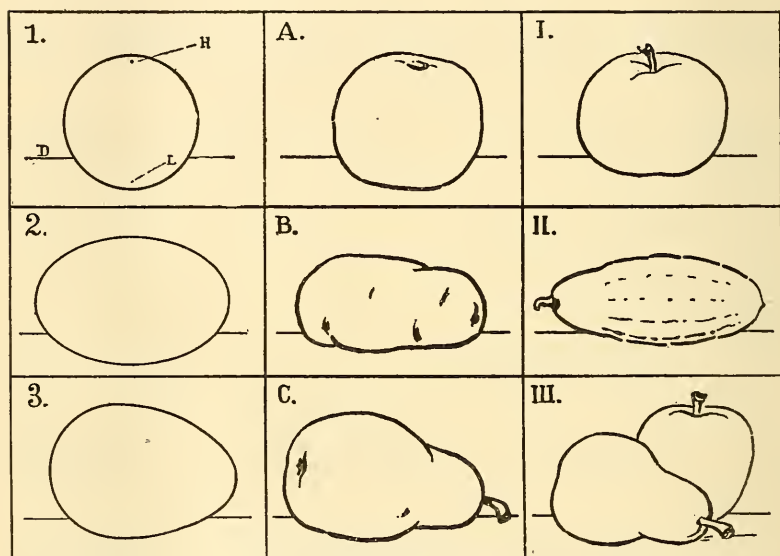


Plate I.

Plate I. illustrates fourth-year work, — such objects as should be drawn by the pupils during their first year in the grammar school. After observing how the appearance of objects is affected by their distance from the eye, the pupils study the sphere and represent it (Fig. 1). They learn that the outline of the sphere represented by the circle is not the same outline as that represented in a working drawing; that, owing to the position of their eyes, they see *over* the top, or highest point on the sphere, and cannot see the point where the sphere touches the desk. They learn that point H represents the highest point on the sphere, although it does not coincide with the highest point of the circle. This circle represents a solid body resting upon the desk; the back edge of the desk, then, is represented (D) as passing behind the sphere. If the pupils thoroughly understand this drawing, and think of the circle as representing a solid, the line D, as representing the

further edge of a plane upon which it rests at the point L, and the point H as the highest part of the sphere, they will have little difficulty in reading any subsequent drawing. After this first principle — the representation of solidity — is mastered, objects based upon the type form and its variations are drawn, that the pupils may acquire facility in representing simple objects in perspective.*

In drawing objects of this character, consider first the whole width and whole height, and indicate these dimensions upon the paper. Then sketch the outline lightly, going over it repeatedly, until it is correct. Lastly, sketch the details, and finish the drawing with such a line as shall indicate the character of the object. Of course little should be said to pupils at this stage about “quality of line;” but the teacher should keep this in mind. The fine, accurate outline of an egg is not to be represented by the same sort of line as the broken outline of a potato. Very young pupils may be led to appreciate this.

Fig. III. shows a group. A group is always more interesting to a pupil than a simple object, — it is more like a picture. As no new principle is involved in drawing such a group as this, pupils who can draw either object by itself, can draw the group.

Plate II. illustrates fifth-year work. After a thorough review of the previous work, the new principle to be taught is foreshortening. The type form which best illustrates this principle is the hemisphere, Fig. 4. The order of drawing in this and all other cases is: First, whole height (a b), compared with whole width (c d), — these indicated upon the paper. Second, principal divisions of the mass (a, e, and e, b), compared and noted (point e). Third, principal parts sketched (ellipse, semicircle), and the boundary of the plane upon which the object rests. Fourth, finish the drawing, remembering that nearer edges are represented by darker lines than those farther away. If an object like D is too difficult, cut an apple in two horizontally. Fig. IV. shows another simple group. The order

* Throughout these illustrations, the type forms illustrating the principles are placed in the first column, and designated by figures; in the second column the simplest applications have been suggested, designated by letters; while in the third column are placed sketches of objects suitable for additional study or for advanced pupils to draw, designated by numerals. The objects have been thoughtfully selected from such as are usually found in the average school-room, or may be easily obtained.

of drawing is identical with that already indicated, — whole width, whole height, principal parts, details. Drawing from groups of objects should be encouraged throughout the course.

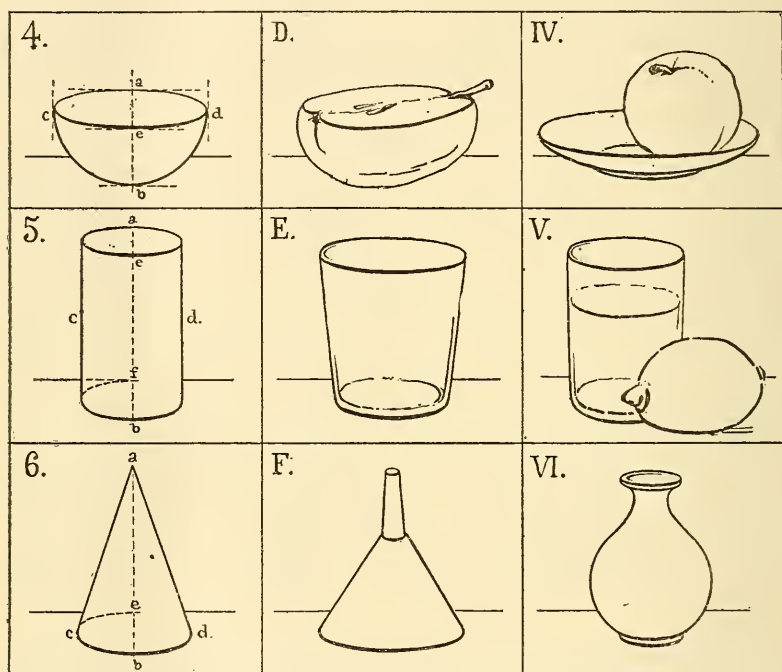


Plate II.

The effect of height, or the distance of the foreshortened surface above or below the level of the eye, is next to be considered. The cylinder, Fig. 5, best illustrates this. The cylinder is so placed that the edge of its base touches the back edge of the supporting plane. In sketching, then, the point *f* is easily determined, and the width of the lower ellipse — which, by the way, should always be sketched entire* — may be compared with the width of the upper, and the pupils thus be led to discover the law regulating the amount of foreshortening in a given surface.

* Many teachers claim that all the edges of any object, visible and invisible, should be sketched by the pupil, to insure the correct representation of the visible edges. Besides, such practice increases the pupil's power to realize the solid, thus training his imagination. In drawing the objects of a group, if each is sketched entire, their relative positions will probably be more nearly correct, and each will have sufficient space allotted to it. Unless this is done, the impossible is sometimes suggested, — two or more objects occupying the same space at the same time.

The tangential union of lines, already illustrated in the cylinder, is still further considered in the study of the cone, Fig. 6, and allied forms, F and VI. The point *e* in Fig 6 is determined by the position of the edge of the supporting plane, as before, and the ellipse sketched entire before the elements of the cone are indicated. Unless this is done, the union of the straight and curved lines, at *c* and *d*, is likely to be anything but tangential.

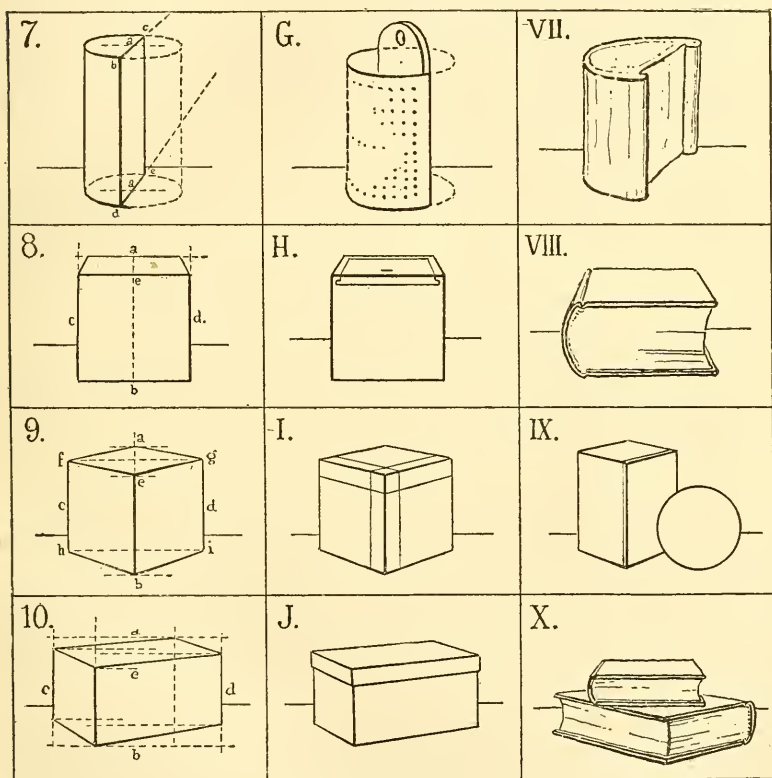


Plate III.

Plate III. indicates the work of the sixth year, illustrating the principles of convergence. Pupils should not only be able to draw what is placed before them, but to image any familiar object so clearly that it becomes a reality to the mind. They should be able to think the form; think around it, and under it, and over it, and through it; to do with the mental object what they might actually do with the material object. An

exercise like that illustrated by Fig. 7, preparatory to the study of the convergence of lines in a cube, is valuable. Having drawn a cylinder from the object, the pupil cuts it in two by a vertical plane (if necessary, first dividing the cylinder from which his drawing was made). By continuing edges *b c* and *d e*, the pupil discovers their convergence in his drawing, after which he the more easily discovers the convergence of the edges in the object.

Many familiar objects are based on this type form, but it is oftener traceable in plant forms, notably in leaf stalks. A knowledge of the perspectives of the half cylinder is prerequisite to accurate botanical drawing. Fig. VII. shows a section of rhubarb stalk, easily obtained in its season, and typical of a large class of stems.

The cube furnishes examples of convergence under the following conditions:—

- a.* One foreshortened plane, one set converging lines.
- b.* One foreshortened plane, two sets converging lines.
- c.* Equal planes, equally foreshortened.
- d.* Equal planes, unequally foreshortened,* while the square prism furnishes the remaining condition.
- e.* Unequal planes, unequally foreshortened.

These exercises are illustrated on Plate III., Figs. 8, 9 and 10. The order of drawing each, indicated by dotted lines, is the same as usual; the position of each point and line being determined by comparison with vertical and horizontal lines. The “cube-root box” and blocks, the dictionary, chalk box, etc., furnish suitable objects to draw, illustrating these principles.

Plate IV. illustrates seventh-year work. During this year more difficult problems are presented to the pupil; but the new principle, the relation of diagonals, when understood, is an aid in his drawing and a test of its correctness. In geometry, the diagonals of a square hold certain relations to the square and to each other; in model drawing, those relations are unchanged, except that the square, and therefore all within it, is affected

* As pupils find most difficulty in drawing objects exhibiting these conditions, this exercise—the cube “at 30° and 60°”—is omitted until the next year.

by the foreshortening. The diagonals still divide the square accurately, and indicate its perspective centre. The pupil first draws a cube, Fig. 11. By using the diagonals, the correct

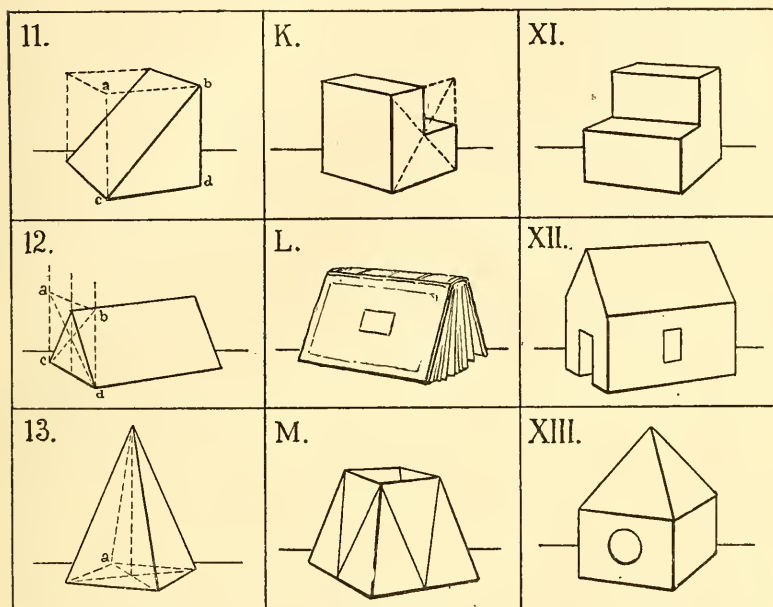


Plate IV.

appearance of a half cube, or right-angled triangular prism, is obtained. Further use of these is observed in K and in XI. In L, the central oblong of the cover is determined by diagonals. In XII., diagonals fix the positions of door and window. In M they were used to determine the centres of the base lines; and in XIII., the position of the circle. The drawing of the pyramid, Fig. 13, is tested by sketching base, diagonals and altitude; and, in Fig. XIII., the apex of the pyramidal roof is determined in a similar way.*

The eighth-year work is illustrated on the fifth plate. The principle to be considered is the relation of axes. There are

* Figures K, M, XI., XII. and XIII., show objects which may be given as problems in development of surface, and constructed by the pupil, and then used as models in these exercises. M is simply a pyramid, with the apex of each triangular face turned back upon its base. By adding cords at the corners, a hanging basket may be constructed. Fig. XII., the model of a house, and Fig. XIII., a bird house, are interesting problems in development.

four classes of objects, presenting various applications of the principles : —

- a. Ovoid and elliptical.
- b. Conical.
- c. Cylindrical.
- d. Pyramidal.

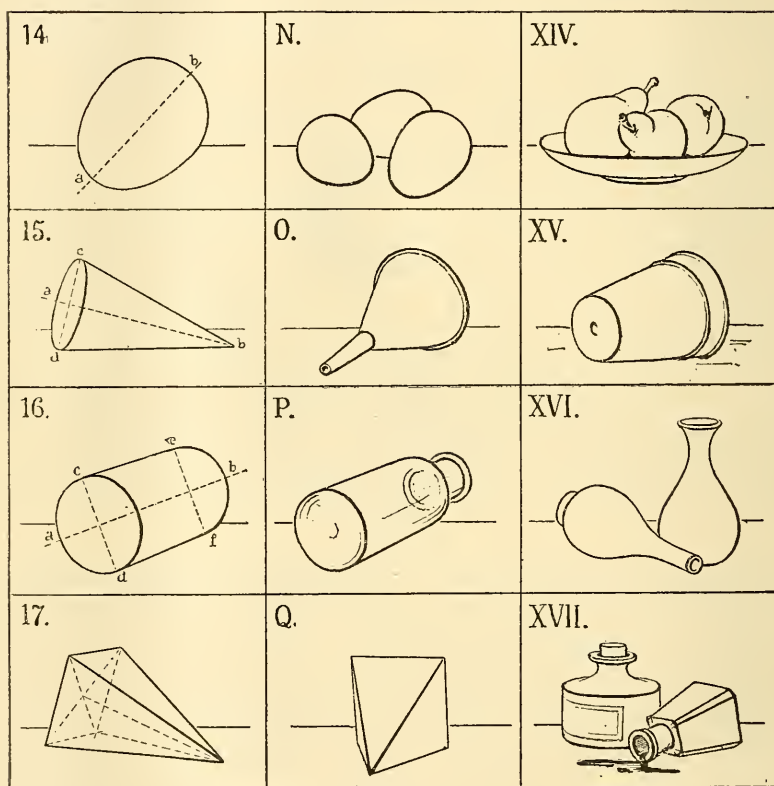


Plate V.

These are considered in their order, each in turn presenting an additional phase of the problem. The order to be followed in the drawing is the same as that already given, except that, after indicating the entire mass of the object, its axis is sketched, to assist in determining the principal divisions of the mass.

In ovoid forms, Fig. 14, the relation of one axis to the mass is to be considered ; in conical forms, Fig. 15, the relation of one axis to another ; in cylindrical forms, Fig. 16, the relation

of two axes to another;* while in pyramidal forms the relation of the axis to the base determines the character of the pyramid, and, when indicated, serves to test the accuracy of the pupil's work.

The ninth-year work is not here illustrated. It should consist of a review of the principles already considered, and a study of their applications in tilted or leaning objects. During the latter part of the year the elementary principles governing light and shade should be considered, and the pupil taught to represent the breadth of light and shade by means of half-tinting.

Throughout the entire course in model and object drawing, pupils should have practice in drawing objects above the level of the eye, as well as below it. Large objects, either suspended from the ceiling over the teacher's desk or elevated upon a suitable support, in such a position that all may see them clearly, are adapted to this part of the work. This is preparatory to sketching from nature such objects as buildings, bridges, etc., where some parts are far above the level of the eye.

The pupils should be supplied with manila sketch books,—costing but a cent or two each, and easily made under the teacher's direction,—and encouraged to use them constantly. Let them sketch anything they fancy; only let them remember that to draw correctly the picture of an object is simply to tell the truth about it, and that an untruth in line is equivalent to an untruth in word or in deed.

* To say that the long diameters of the two ellipses are always at right angles to the axis of the cylinder, is not strictly accurate; for $c d$ and $e f$ are parallel, and retreat from the observer; therefore they must converge slightly in the drawing. But this convergence is so slight that it is seldom mentioned to pupils at this stage. Teachers are quite generally satisfied if they are able to lead their pupils to see that the long diameters are *not vertical*. The general rule for sketching diameters is therefore illustrated in Fig. 16.

H.

LAWS OF 1889 RELATING TO SCHOOLS.

[CHAP. 291.]

AN ACT RELATING TO THE EMPLOYMENT OF CHILDREN.

Be it enacted, etc., as follows :

Section seven of chapter three hundred and forty-eight of the acts of the year eighteen hundred and eighty-eight is amended so as to read as follows : — No child who has been continuously a resident of a city or town since reaching the age of thirteen years shall be entitled to receive a certificate that he has reached the age of fourteen unless or until he has attended school according to law in such city or town for at least twenty weeks since reaching the age of thirteen, unless such child can read at sight and write legibly simple sentences in the English language or is exempted by law from such attendance. [Approved April 26, 1889.]

[CHAP. 422.]

AN ACT TO AUTHORIZE TRUANT OFFICERS TO APPREHEND AND TAKE TO SCHOOL WITHOUT WARRANT TRUANTS DISCOVERED IN THE ACT OF TRUANCY.

Be it enacted, etc., as follows :

SECT. 1. Truant officers in cities and towns are hereby authorized, under the direction of the school committees of their respective cities and towns, to apprehend and take to school without warrant all truants found wandering about in the streets or public places.

SECT. 2. This act shall take effect upon its passage. [Approved June 6, 1889.]

[CHAP. 464.]

AN ACT CONCERNING THE ATTENDANCE OF CHILDREN IN THE SCHOOLS.

Be it enacted, etc., as follows :

SECT. 1. Section one of chapter forty-seven of the Public Statutes is amended so as to read as follows : — *Section I.* Every person having under his control a child between the ages of eight and fourteen years shall annually cause such child to attend for at least twenty weeks some public day school in the city or town in which he resides, which time

shall be divided so far as the arrangement of school terms will allow into two terms each of ten consecutive weeks ; and for every neglect of such duty the person offending shall forfeit to the use of the public schools of such city or town a sum not exceeding twenty dollars ; but if such child has attended for a like period of time a private day school approved by the school committee of such city or town or if such child has been otherwise instructed for a like period of time in the branches of learning required by law to be taught in the public schools, or has already acquired the branches of learning required by law to be taught in the public schools, or if his physical or mental condition is such as to render such attendance inexpedient or impracticable, such penalty shall not be incurred. *Section 2.* For the purposes of the preceding section school committees shall approve a private school only when the teaching in all the studies required by law is in the English language, and when they are satisfied that such teaching equals in thoroughness and efficiency the teaching in the public schools in the same locality, and that equal progress is made by the pupils therein, in the studies required by law, with that made during the same time in the public schools ; but they shall not refuse to approve a private school on account of the religious teaching therein. [*Approved June 7, 1889.*

AN ABSTRACT

OF THE SCHOOL RETURNS MADE BY THE SCHOOL COM-
MITTEES OF THE SEVERAL TOWNS AND CITIES
IN THE COMMONWEALTH FOR THE
SCHOOL-YEAR 1888-1889.

BOARD OF EDUCATION.

BARNSTABLE COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation — 1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 8 and 14 years of age.	No. of different pupils all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Barnstable,	4,050	\$2,927,345	24	641	421	698	4	72	471	669	602	.90	24
Bourne, .	1,363	1,077,400	11	256	143	285	—	36	143	236	211	.89	12
Brewster, .	984	478,874	7	171	168	173	4	5	168	144	130	.90	7
Chatham, .	2,028	638,103	11	367	236	388	—	66	218	306	265	.87	11
Dennis, .	2,923	1,244,352	13	492	288	573	3	72	369	457	416	.91	13
Eastham, .	638	227,608	3	75	48	84	1	12	47	59	44	.75	3
Falmouth, .	2,520	4,095,586	16	377	223	460	4	67	257	373	339	.91	17
Harwich, .	2,783	1,001,535	15	428	297	495	—	67	297	411	371	.90	15
Mashpee, .	311	158,190	2	60	50	69	1	15	51	41	32	.78	2
Orleans, .	1,176	466,692	6	142	89	154	—	15	93	124	104	.84	6
Provincetown, .	4,480	2,059,187	17	810	540	930	—	80	525	800	728	.91	20
Sandwich, .	2,124	937,150	12	345	185	382	—	67	185	327	305	.93	14
Truro, .	972	290,860	6	157	78	198	—	29	78	149	133	.89	6
Wellfleet, .	1,687	607,466	8	260	176	247	—	34	170	290	240	.83	9
Yarmouth, .	1,856	1,363,874	9	245	188	268	—	29	174	221	203	.92	9
Totals,	29,845	\$17,574,222	160	4,826	3,130	5,404	17	666	3,246	4,607	4,123	.89	168

BERKSHIRE COUNTY.

Adams, .	8,283	\$3,458,104	37	1,965	1,150	1,993	2	103	1,228	1,578	1,506	.95	41
Alford, .	341	249,421	2	75	50	69	—	—	49	44	38	.86	2

SCHOOL RETURNS.

iii

Becket,	938	401,285	8	177	110	210	2	33	117	154	139	.90	8
Cheshire,	1,448	719,883	10	269	239	298	-	22	212	247	222	.90	10
Clarksburg,	708	207,453	3	123	60	143	-	6	91	95	77	.81	3
Dalton,	2,113	1,880,469	12	485	341	496	1	25	341	378	342	.90	14
Egremont,	826	422,624	3	140	88	131	4	17	76	115	100	.87	4
Florida,	487	177,770	6	110	93	131	1	5	93	100	85	.85	6
Great Barrington,	4,471	3,129,210	24	870	581	965	2	98	578	829	712	.86	26
Hancock,	613	364,686	5	113	71	121	-	8	73	89	74	.83	5
Hinsdale,	1,656	712,784	12	390	284	412	7	26	284	329	288	.88	12
Lanesborough,	1,212	562,472	9	268	164	291	2	15	166	214	180	.84	9
Lee,	4,274	2,215,010	16	668	405	700	3	101	596	564	499	.88	18
Lenox,	2,154	2,389,780	13	440	267	441	1	50	274	352	312	.89	13
Monterey,	571	224,785	5	95	67	103	-	15	47	70	68	.97	5
Mount Washington,	160	79,039	2	27	18	31	2	1	21	25	16	.64	2
New Ashford,	163	82,695	2	33	11	36	-	5	11	23	18	.78	2
New Marlborough,	1,661	629,118	12	268	179	282	3	9	179	224	194	.87	12
North Adams,	12,540	5,610,833	43	2,918	1,925	2,846	-	133	1,466	1,961	1,866	.95	57
Otis,	703	219,173	8	107	66	132	3	15	66	100	90	.90	8
Peru,	368	122,616	5	44	28	45	-	2	31	38	32	.84	5
Pittsfield,	14,466	9,893,959	53	3,197	2,800	3,305	55	450	2,800	2,610	2,386	.91	80
Richmond,	854	476,570	6	216	120	192	1	14	111	145	122	.84	6
Sandisfield,	1,019	388,192	11	177	115	188	6	16	115	143	122	.85	11
Savoy,	2,033	178,728	7	98	75	107	6	8	66	90	74	.82	7
Sheffield,	2,033	945,250	14	421	261	466	8	97	97	313	241	.77	15
Stockbridge,	2,114	2,700,809	9	341	196	346	3	27	229	296	264	.89	10
Tyringham,	457	234,449	5	90	67	84	-	2	50	75	67	.89	5
Washington,	470	198,910	7	96	54	90	-	9	50	68	59	.87	7
West Stockbridge,	1,648	661,684	11	361	233	434	2	30	245	322	306	.95	12
Williamstown,	3,729	1,984,350	15	583	365	773	12	62	453	606	546	.90	16
Windsor,	657	210,579	7	133	87	130	3	2	86	112	99	.88	7
Totals,	73,828	\$41,732,630	382	15,298	10,570	15,991	129	1,406	10,301	12,309	11,144	.91	438

BOARD OF EDUCATION.

BARNSTABLE COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.	
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	LENGTH.		
														Months.		Days.
Barnstable, .	13	29	16	12	\$75 00	\$37 00	204-5	8-10	-	1	1	43	Taxation,	9	\$900 00	
Bourne, .	3	18	2	2	58 33	37 70	89-10	8-2	-	1	2	48	Taxation,	9-10	902 50	
Brewster, .	1	8	6	5	50 00	37 77	56	8	-	1	1	-	-	-	-	
Chatham, .	2	12	3	1	80 00	25 00	99	9	-	1	1	43	Taxation,	9	900 00	
Dennis, .	4	12	3	2	58 00	35 00	111-15	8-12	-	1	1	40	Taxation,	9	562 50	
Eastham, .	1	5	3	3	30 00	34 56	26-5	8-15	-	1	2	-	-	-	-	
Falmouth, .	2	20	9	9	77 00	40 00	144	9	-	1	2	70	Part tax,	9	850 00	
Harwich, .	5	17	4	4	54 20	36 00	111	7-6	1	1	1	43	Taxation,	9	833 00	
Mashpee, .	1	2	2	-	50 00	25 00	13	6-10	-	-	-	-	-	-	-	
Orleans, .	-	7	3	3	-	27 43	54	9	-	-	-	-	-	-	-	
Provincetown, .	3	20	4	4	108 42	30 77	158-10	9-10	-	1	3	90	Taxation,	9-10	1,300 00	
Sandwich, .	3	15	4	3	98 33	34 00	96-5	8-2	-	1	2	53	Taxation,	9-15	1,200 00	
Truro, .	1	10	3	2	50 00	32 00	54	9	-	-	-	-	-	-	-	
Wellfleet, .	1	9	2	2	100 00	33 50	72	9-2	-	1	1	53	Taxation,	10	1,000 00	
Yarmouth, .	4	7	2	2	64 50	35 00	81	9	-	1	1	33	Part tax,	9	900 00	
Totals, .	44	191	66	54	\$71 03	\$34 52	1,370-10	8-9	1	10	15	516	-	92-15	\$9,348 00	

BERKSHIRE COUNTY — CONTINUED.

Adams, .	5	45	9	9	\$125 64	\$37 40	335	9-1	-	1	3	83	Taxation,	9-15	\$1,200 00
Alford, .	2	1	1	1	27 50	29 33	18-5	9-2	-	-	-	-	-	-	-

SCHOOL RETURNS.

v

	2	13	4	37	\$62 58	\$30 29	3,275-12	8-1	7	12	24	719	-	-	-	8-10	-
Becket, .	13	2	4	37	\$62 58	\$30 29	3,275-12	8-1	7	12	24	719	-	-	-	-	-
Cheshire, .	10	2	2	2	70 59	29 33	83-10	8-7	-	-	1	1	-	-	-	-	-
Clarksburg, .	6	1	1	3	32 00	32 00	24-15	8-6	-	-	-	-	-	-	-	-	-
Dalton, .	13	4	2	3	86 48	32 28	110-10	9-4	-	-	-	-	-	-	-	-	-
Egremont, .	2	4	2	1	36 66	30 66	27	9	-	-	-	-	-	-	-	-	-
Florida, .	9	1	1	1	30 00	22 66	36	6	-	-	-	-	-	-	-	-	-
Great Barrington, .	20	4	4	2	66 00	33 00	211-5	9-4	-	1	2	94	Taxation,	-	-	9-15	1,350 00
Hancock, .	6	1	1	-	-	25 81	36	7-4	-	-	-	-	-	-	-	-	-
Hillinsdale, .	12	2	2	-	-	26 00	93-1	8-4	1	1	1	30	Taxation,	-	-	5-15	600 00
Lauesborough, .	11	-	-	-	-	25 33	72	8	-	-	-	-	-	-	-	-	-
Lee, .	20	3	3	-	32 00	33 52	143	8-19	-	1	2	70	Taxation,	-	-	9	1,500 00
Lenox, .	13	2	2	1	60 00	28 00	118-10	9-2	1	1	1	32	Taxation,	-	-	9-15	1,000 00
Monterey, .	6	2	2	1	40 00	21 00	41-10	8-6	-	-	-	-	-	-	-	-	-
Mt. Washington, .	2	2	2	1	-	26 00	15	7-10	-	-	-	-	-	-	-	-	-
New Ashford, .	1	-	-	-	20 00	20 00	15-15	7-17	-	-	-	-	-	-	-	-	-
New Marlboro', .	4	14	3	-	29 25	21 55	85-5	6-5	2	-	-	-	-	-	-	-	-
North Adams, .	3	62	5	2	115 00	37 49	388-5	9-1	-	2	4	-	Taxation,	-	-	9-15	1,700 00 540 00
Otis, .	10	1	1	-	20 00	19 00	48	6	-	-	-	-	-	-	-	-	-
Peru, .	6	1	1	-	-	19 83	32	6-8	-	-	-	-	-	-	-	-	-
Pittsfield, .	75	5	10	5	99 00	34 00	530	10	-	1	5	250	Taxation,	-	-	10	1,800 00
Richmond, .	10	-	-	-	-	25 33	57-10	9-12	-	-	-	-	-	-	-	-	-
Sandisfield, .	13	-	-	-	20 00	21 26	76-2	6-18	-	-	-	-	-	-	-	-	-
Savoy, .	7	1	1	1	26 00	17 92	42	6	-	-	-	-	-	-	-	-	-
Sheffield, .	3	19	2	1	44 59	26 29	123-19	8-17	-	1	1	64	Taxation,	-	-	9	700 00
Stockbridge, .	4	11	2	2	90 00	37 00	87-15	9-15	-	1	2	43	Taxation,	-	-	9-15	1,200 00
Tyringham, .	10	-	-	-	-	25 33	40	8	-	-	-	-	-	-	-	-	-
Washington, .	9	1	1	-	-	19 75	49-10	7	1	-	-	-	-	-	-	-	-
West Stockbridge, .	6	12	2	-	46 66	31 00	107-5	9-15	-	-	-	-	-	-	-	-	-
Williamstown, .	1	20	4	3	85 00	28 83	128	8-10	2	1	2	36	Taxation,	-	-	10	850 00
Windsor, .	1	9	2	2	24 00	22 44	42	6	-	-	-	-	-	-	-	-	-
Totals, .	64	479	74	37	\$62 58	\$30 29	3,275-12	8-1	7	12	24	719	-	-	-	101	\$13,040 00

BOARD OF EDUCATION.

BARNSTABLE COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for schools, including wages of teachers, fires and school-rooms for the school-year 1888-89.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for transportation of pupils.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Barnstable,	\$9,000 00	\$743 00	—	\$43 00	\$111 05	—	—	—	\$1,200 00	\$11,097 05
Bourne, .	5,000 00	—	\$250 00	—	520 50	—	—	—	150 00	5,920 50
Brewster, .	2,000 00	130 00	—	18 00	201 22	—	—	\$400 00	—	2,749 22
Chatham, .	3,300 00	239 00	—	20 00	351 22	—	—	34 93	124 28	4,069 43
Dennis, .	5,000 00	150 00	75 00	20 00	512 78	—	—	—	224 20	5,981 98
Eastham, .	900 00	—	65 00	10 00	44 22	—	—	—	29 19	1,048 41
Falmouth, .	6,850 00	128 33	1,000 00	35 50	663 47	\$500 00	—	298 30	395 26	9,870 86
Harwich, .	5,000 00	200 00	—	23 00	357 00	—	—	50 00	500 00	6,130 00
Mashpee, .	450 00	30 00	—	8 00	23 51	—	—	—	25 88	537 39
Orleans, .	2,200 00	5 00	100 00	—	147 70	—	—	—	177 21	2,629 91
Provincetown, .	8,000 00	350 00	—	10 00	706 30	—	\$2,025 76	—	956 10	12,048 16
Sandwich, .	6,000 00	39 72	200 00	25 00	299 15	136 77	—	160 55	—	6,861 19
Truro, .	1,700 00	100 25	—	16 50	170 00	—	—	—	376 25	2,363 00
Wellfleet, .	3,958 86	175 00	—	—	381 72	—	—	552 36	342 44	5,410 38
Yarmouth, .	3,000 00	100 00	—	35 00	497 22	—	—	—	332 13	3,964 35
Totals,	\$62,358 86	\$2,390 30	\$1,630 00	\$264 00	\$4,987 06	\$636 77	\$2,025 76	\$1,496 14	\$4,832 94	\$80,681 83

BERKSHIRE COUNTY — CONTINUED.

Adams, .	\$18,747 56	\$150 00	\$1,700 00	\$60 00	\$3,037 62	—	\$4,181 65	—	\$731 09	\$28,607 92
Alford, .	298 19	13 25	—	12 00	67 03	—	—	—	4 70	395 17

SCHOOL RETURNS.

vii

Becket, . . .	1,200 00	81 00	-	4 00	115 81	-	\$6 80	27 41	1,435 02
Cheshire, . .	3,000 00	58 00	-	7 00	200 00	-	-	200 00	3,465 00
Clarksburg, .	700 00	47 50	-	5 00	128 44	-	-	58 09	939 03
Dalton, . . .	5,300 00	100 00	100 00	-	850 00	-	550 00	150 00	7,050 00
Egremont, . .	1,000 00	47 28	-	-	95 87	-	-	10 60	1,153 75
Florida, . . .	855 76	80 00	-	12 00	58 76	-	454 56	11 00	1,472 08
Gt. Barrington,	12,000 00	260 00	-	37 50	1,164 49	-	4,562 26	1,480 60	31,022 02
Hancock, . .	800 00	55 00	-	7 50	120 92	-	-	4 74	988 16
Hinsdale, . .	3,200 00	105 00	-	-	377 85	-	93 90	115 00	3,891 75
Lauesborough, .	1,800 00	-	-	-	350 00	-	-	100 00	2,000 00
Lee, . . .	6,200 00	290 00	-	-	500 00	-	300 00	200 00	7,040 00
Lenox, . . .	4,900 00	124 13	-	15 00	55 98	-	-	236 43	6,075 56
Monterey, . .	650 00	33 00	-	5 00	55 98	\$56 80	-	94 86	895 64
Mt. Washington,	100 00	10 00	-	2 00	6 00	-	-	5 00	123 00
New Ashford, .	99 00	-	-	15 00	26 15	-	-	27 25	167 40
New Marlboro',	2,000 00	107 45	-	5 00	130 72	-	21 00	160 16	2,424 33
North Adams, .	23,679 30	250 00	1,900 00	140 00	2,737 08	-	1,000 00	2,622 63	54,540 71
Otis, . . .	900 00	62 60	-	4 00	37 69	-	-	11 00	1,015 29
Peru, . . .	450 00	20 00	-	6 00	40 68	7 20	-	8 00	531 88
Pittsfield, . .	33,628 54	50 00	1,500 00	100 00	1,938 13	-	-	4,332 88	41,549 55
Richmond, . .	1,334 00	41 25	-	19 40	121 83	-	-	31 50	1,547 98
Sandisfield, . .	1,800 00	61 00	-	9 25	99 17	-	-	8 83	1,978 25
Savoy, . . .	600 00	34 50	-	5 00	54 04	-	-	9 50	1,255 94
Shetheld, . . .	3,500 00	212 19	-	7 00	335 32	-	-	186 40	5,421 18
Stockbridge, . .	5,500 00	230 00	-	-	369 25	171 00	230 27	895 91	7,403 34
Tyringham, . .	800 00	23 00	-	9 00	62 00	-	-	32 00	926 00
Washington, . .	700 00	24 09	-	-	27 73	-	-	-	926 82
W. Stockbridge,	4,450 00	110 00	-	10 00	340 86	-	387 93	141 79	5,440 58
Williamstown, .	5,971 03	105 00	-	25 50	545 74	152 55	-	117 70	8,053 49
Windsor, . . .	700 00	37 00	-	5 00	50 00	100 00	-	-	892 00
Totals, . . .	\$146,863 38	\$2,822 24	\$5,200 00	\$527 15	\$11,145 16	\$487 55	\$7,843 90	\$12,015 07	\$230,628 84

SCHOOL RETURNS.

[illegible]

* Parochial.

BOARD OF EDUCATION.

BRISTOL COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 16 and 19 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year, under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Acushnet, . . .	1,071	\$620,050	6	179	99	170	1	9	99	145	129	.89	6
Attleborough, . . .	13,175	3,779,212	25	1,105	753	1,396	9	96	915	1,075	963	.90	33
Berkley, . . .	941	401,330	7	156	140	167	7	14	107	135	122	.90	7
Dartmouth, . . .	3,448	1,822,000	21	510	304	506	4	49	289	412	358	.87	20
Dighton, . . .	1,782	745,670	11	303	193	354	4	37	199	270	238	.88	11
Easton, . . .	3,948	3,691,171	20	784	446	800	3	68	460	744	677	.91	28
Fairhaven, . . .	2,880	1,509,532	13	412	262	467	2	47	256	421	373	.89	13
Fall River, . . .	56,870	46,504,585	164	13,029	7,733	11,231	—	515	6,333	8,073	7,264	.90	218
Freetown, . . .	1,457	854,451	8	217	129	267	9	30	156	189	150	.79	8
Mansfield, . . .	2,939	1,353,962	14	461	396	610	7	129	413	562	459	.82	15
New Bedford, . . .	33,393	33,454,347	105	6,208	3,812	5,477	4	502	3,514	3,988	3,652	.92	125
North Attleborough, . . .	—	3,572,264	28	1,285	702	1,344	1	84	773	1,125	1,044	.93	38
Norton, . . .	1,718	798,550	8	314	210	218	5	6	210	232	201	.87	8
Raynham, . . .	1,535	820,168	8	224	130	229	2	6	130	190	172	.91	8
Rehoboth, . . .	1,788	735,885	14	270	169	316	8	34	164	233	202	.87	14
Seekonk, . . .	1,295	823,550	8	245	146	248	2	5	146	175	155	.89	8
Somerset, . . .	2,475	1,021,479	11	383	237	418	—	16	220	314	285	.91	11
Swansea, . . .	1,403	733,700	10	201	138	240	1	12	138	187	158	.84	10
Taunton, . . .	23,674	17,291,740	78	4,227	2,485	4,294	—	243	2,660	3,683	3,293	.90	92
Westport, . . .	2,706	1,312,525	20	453	294	490	5	32	282	408	345	.85	20
Totals, . . .	158,498	\$121,855,171	579	30,966	18,778	29,242	74	1,934	17,964	22,561	20,240	.90	693

SCHOOL RETURNS.

xi

DUKES COUNTY.

Chilmark,	412	\$212,935	3	58	37	60	1	8	36	51	46	.90	3
Cottage City,	709	1,449,475	4	150	97	157	1	6	94	126	102	.81	4
Edgartown,	1,165	712,014	6	170	85	163	1	32	84	150	133	.89	6
Gay Head,	186	20,059	1	28	21	33	-	5	21	28	20	.72	1
Gosnold,	122	202,429	1	11	6	15	-	7	3	15	10	.67	1
Tisbury,	1,541	787,254	8	168	114	201	-	26	112	168	146	.87	9
Totals,	4,135	\$3,384,166	23	585	360	629	3	84	350	538	457	.85	24

BRISTOL COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'g wages per month of male teachers in Public Schools.	A'v'g wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.	
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.		
														Months.		Days.
Aenshnet, .	3	8	4	3	\$40 00	\$34 00	54	9	1	1	1	80	Taxation,	10	\$1,300 00	
Attleborough, .	2	41	17	14	115 00	41 00	219-15	8-16	1	3	1	1	1	1	1	
Berkley, .	1	10	5	4	—	30 00	54-5	7-15	1	1	1	1	1	1	1	
Dartmouth, .	4	23	5	3	42 25	25 70	173-5	8-5	1	1	1	32	Taxation,	9	600 00	
Dighton, .	1	16	9	6	—	35 17	90-15	8-5	1	1	1	1	1	1	1	
Easton, .	2	28	8	7	110 90	46 05	191	9-11	1	3	1	73	Taxation,	9-15	1,500 00	
Fairhaven, .	1	13	5	5	110 00	33 37	109-15	9-3	1	2	1	71	Taxation,	10	1,100 00	
Fall River, .	12	236	17	15	129 70	48 02	1,605	9-18	1	13	1	526	Taxation,	10	3,000 00	
Freetown, .	2	7	1	1	40 00	30 66	63-10	7-19	1	1	1	62	Taxation,	10	1,000 00	
Mansfield, .	5	19	5	1	44 46	33 33	127	9-2	1	11	1	466	Taxation,	10	2,500 00	
New Bedford, .	9	116	—	—	152 33	51 37	1,052	10-10	1	3	1	100	Taxation,	8-10	1,100 00	
North Attleboro', .	4	45	30	22	87 00	39 58	229-16	8-4	1	1	1	1	1	1	1	
Norton, .	1	11	2	1	—	36 00	72	9	1	1	1	1	1	1	1	
Raynham, .	1	16	7	6	—	34 58	66-10	8-6	1	1	1	1	1	1	1	
Rehoboth, .	1	18	2	1	—	29 60	105	7-10	1	1	1	1	1	1	1	
Seekonk, .	1	14	8	1	—	31 00	72	9	1	1	1	35	Taxation,	9-10	760 00	
Somerset, .	3	18	3	1	60 00	37 16	99-10	8-10	1	1	1	1	1	1	1	
Swansea, .	2	10	5	1	30 00	28 15	87	8-14	1	5	1	208	Taxation,	10	2,000 00	
Taunton, .	10	86	10	10	105 34	45 60	727	9-10	1	1	1	18	Taxation,	9	540 00	
Westport, .	4	28	3	2	48 00	26 00	169-10	8-10	1	1	1	1	1	1	1	
Totals, .	63	763	146	102	\$93 87	\$42 69	5,368-11	8-15	2	11	45	1,671	—	105-15	\$15,400 00	

DUKES COUNTY — CONTINUED.

Chilmark, .	1	4	2	1	\$35 00	\$30 00	22-10	7-10	—	—	—	—	—	—	—
Cottage City, .	1	4	2	2	65 00	31 00	34-10	8-12	—	—	—	—	—	—	—
Edgartown, .	1	5	—	—	60 00	30 60	48	8	—	1	1	41	—	9	\$540 00
Gay Head, .	1	1	1	1	45 00	18 00	6	6	—	—	—	—	—	—	—
Gosnold, .	—	1	—	—	—	30 00	9	9	—	—	—	—	—	—	—
Tisbury, .	3	9	4	3	48 00	29 00	63	8	—	—	—	—	—	—	—
Totals, .	7	24	9	7	\$49 85	\$29 42	183	7-17	—	1	1	41	—	9	\$540 00

BRISTOL COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including board, fuel, care of wages of teachers, fires and school-rooms, for the school-year 1888-89.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, books, stationery, etc.	Amount expended for transportation of pupils.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Acushnet, . . .	\$1,700 00	\$80 00	—	\$8. 00	\$247 00	—	—	—	\$64 00	\$2,099 00
Attleborough, . .	14,750 00	50 00	\$800 00	54 00	1,075 00	\$650 00	—	—	1,800 00	19,179 00
Berkley, . . .	1,350 00	70 00	—	20 00	150 00	—	—	—	20 00	1,610 00
Dartmouth, . . .	5,000 00	150 00	—	31 00	442 20	—	—	—	328 14	5,951 34
Dighton, . . .	3,200 00	—	150 00	21 50	384 90	—	\$800 00	—	415 36	4,971 76
Easton, . . .	10,068 30	—	1,000 00	—	2,203 36	224 93	—	\$2,570 29	765 86	16,832 74
Fairhaven, . . .	6,339 79	—	—	—	409 64	55 80	—	160 00	186 00	7,151 23
Fall River, . . .	147,512 41	800 00	2,500 00	533 52	12,899 87	698 50	—	—	15,639 05	180,583 35
Freetown, . . .	2,000 00	95 00	—	6 00	196 52	92 50	—	—	182 38	2,572 40
Mansfield, . . .	4,500 00	185 65	—	—	500 00	—	—	—	600 00	5,785 65
New Bedford, . .	93,081 68	592 02	2,259 59	102 00	4,931 50	—	27,766 41	4,150 09	4,926 10	137,809 39
No. Attleboro', . .	17,000 00	150 00	1,500 00	56 00	1,211 03	—	—	—	500 00	20,417 03
Norton, . . .	2,500 00	113 25	—	16 15	371 74	—	—	—	185 85	3,186 99
Raynham, . . .	3,000 00	41 50	150 00	15 00	106 91	—	—	—	256 04	3,569 45
Rehoboth, . . .	3,341 00	105 00	—	20 00	158 31	—	—	433 22	—	4,057 53
Seekonk, . . .	1,700 00	90 00	—	8 00	170 17	—	—	—	68 49	2,036 66
Somerset, . . .	4,528 08	370 58	—	—	916 57	—	—	—	711 30	6,526 53
Swansea, . . .	2,723 37	24 00	100 00	19 20	142 92	969 20	—	—	196 98	4,175 67
Taunton, . . .	55,652 34	—	1,650 00	88 56	7,582 24	371 50	15,900 00	—	5,489 32	86,733 96
Westport, . . .	4,500 00	311 00	—	11 00	376 82	—	—	—	210 83	5,409 65
Totals, . . .	\$384,446 97	\$3,228 00	\$10,109 59	\$1,009 93	\$34,476 70	\$3,062 43	\$44,466 41	\$7,313 60	\$32,545 70	\$520,659 33

SCHOOL RETURNS.

xv

DUKES COUNTY — CONTINUED.

Chilmark, .	\$500 00	\$42 00	—	\$5 00	\$02 16	—	—	—	\$1 90	\$611 06
Cottage City, .	1,300 00	75 00	—	25 00	240 00	—	—	—	65 00	1,705 00
Edgartown, .	1,700 00	50 00	—	25 00	476 51	—	—	—	349 53	2,601 04
Gay Head, .	84 00	20 00	—	—	10 00	—	—	—	3 00	117 00
Gosnold, .	200 00	30 00	—	2 50	56 69	—	—	—	—	289 19
Tisbury, .	2,425 00	75 00	—	19 00	229 00	—	—	—	5 00	2,753 00
Totals, .	\$6,209 00	\$292 00	—	\$76 50	\$1,074 36	—	—	—	\$124 43	\$8,076 29

BRISTOL COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1889.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Acushnet, .	—	—	—	\$460 99	1	—	—	1	25	\$300 00	\$205 40	—
Attleborough, .	—	—	—	850 00	—	—	—	—	—	14 00	76 02	—
Berkley, .	—	—	—	140 32	—	—	—	2	—	—	305 87	—
Dartmouth, .	—	\$2,000 00	\$97 26	249 68	—	—	—	—	—	—	167 55	—
Dighton, .	—	—	—	204 20	—	—	—	—	—	—	207 97	—
Easton, .	—	100,000 00	7,500 00	520 17	—	—	—	—	—	—	25 71	—
Fairhaven, .	—	—	—	360 00	—	—	—	2	15	75 00	163 17	—
Fall River, .	—	50,000 00	2,500 00	—	—	—	—	12	2,733	9,000 00	—	\$20 00
Freetown, .	—	—	—	175 65	—	—	—	—	—	—	207 40	—
Mansfield, .	—	1,000 00	40 00	—	—	—	—	—	—	—	164 70	—
New Bedford, .	—	50,000 00	3,000 00	987 69	1	41	\$3,000 00	10	1,814	5,000 00	—	—
N. Attleborough, .	—	—	—	—	—	—	—	—	—	—	—	—
Norton, .	—	—	—	291 78	1	117	6,091 00	—	—	—	210 16	—
Raynham, .	—	—	—	242 41	—	—	—	—	—	—	206 79	—
Rehoboth, .	—	—	—	264 67	—	—	—	1	25	300 00	208 41	70 00
Seekonk, .	—	8,000 00	340 00	233 23	—	—	—	—	—	—	208 16	—
Somerset, .	—	—	—	211 45	—	—	—	—	—	—	163 97	99 29
Swansea, .	—	—	—	—	—	—	—	—	—	—	206 98	—
Taunton, .	—	—	—	—	1	132	4,770 00	3	55	500 00	—	—
Westport, .	—	—	—	—	—	—	—	—	—	—	165 17	—
Totals, .	—	\$211,000 00	\$13,477 26	\$5,192 24	3	290	\$13,861 00	31	4,667	\$15,189 00	\$2,893 43	\$189 29

DUKES COUNTY — CONCLUDED.

Chilmark, .	\$14 35	-	-	-	-	-	-	-	-	\$301 90	-
Cottage City, .	-	-	-	-	-	\$60 00	-	-	-	154 76	\$26 00
Edgartown, .	-	-	-	-	-	56 30	-	-	-	205 24	-
Gay Head, .	-	-	-	-	-	-	-	-	-	300 95	-
Gosnold, .	-	-	-	-	-	-	-	-	-	300 48	-
Tisbury, .	5 00	-	-	-	1	207 00	16	\$50 00	-	204 67	-
Totals, .	\$19 35	-	-	-	1	\$323 30	16	\$50 00	-	\$1,468 00	\$26 00

ESSEX COUNTY.

TOWNS.	Population—State Census, 1880.	Valuation—1888.	No. of Public Schools.	No. of persons in town May 1, 1883, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Amesbury,	4,403	\$3,965,600	26	1,482	982	1,123	—	109	470	936	679	.73	28
Andover,	5,711	4,952,750	28	982	619	981	4	18	619	907	843	.93	28
Beverly,	9,186	13,859,225	37	1,767	1,069	1,775	—	140	957	1,695	1,392	.82	42
Boxford,	840	658,625	6	133	80	137	1	4	97	119	102	.86	6
Bradford,	3,106	1,619,402	12	570	333	638	—	73	358	566	520	.92	16
Danvers,	7,061	3,861,370	22	1,130	661	1,270	6	87	745	1,107	1,009	.91	28
Essex,	1,722	852,792	9	197	144	238	4	18	150	203	185	.91	9
Georgetown,	2,299	1,015,049	11	465	246	462	—	25	235	431	363	.84	13
Gloucester,	21,703	12,991,498	81	3,652	2,225	4,104	1	462	2,183	3,422	3,314	.97	101
Groveland,	2,272	877,555	10	391	226	405	1	17	241	342	304	.89	10
Hamilton,	851	772,070	4	126	76	133	3	12	70	103	83	.81	4
Haverhill,	21,795	16,659,379	75	4,032	2,400	3,650	2	316	2,059	2,916	2,702	.93	93
Ipswich,	4,207	2,283,250	16	640	421	679	3	59	371	561	510	.91	18
Lawrence,	38,862	28,971,979	105	7,923	4,722	6,415	3	327	4,073	4,975	4,767	.96	132
Lynn,	45,867	33,224,080	146	8,020	4,793	7,597	—	574	4,041	6,825	6,101	.90	155
Lynnfield,	766	557,492	3	121	61	133	1	8	61	92	81	.88	3
Manchester,	1,639	7,008,831	8	238	147	270	—	8	147	255	231	.91	8
Marblehead,	7,517	4,591,026	15	1,459	874	1,350	—	99	837	1,196	1,034	.87	30
Merrimac,	2,378	1,337,739	14	511	301	552	2	68	299	479	442	.92	16
Methuen,	4,507	2,894,732	19	834	477	835	2	91	597	752	673	.89	23
Middleton,	899	558,661	4	153	91	143	—	17	92	115	100	.87	4
Nahant,	637	4,857,731	4	137	91	151	—	24	91	129	118	.91	5
Newbury,	1,590	982,070	7	309	158	218	1	23	138	173	151	.87	7

Newburyport, .	13,716	8,686,130	35	2,438	1,727	1,695	11	104	1,006	1,425	1,204	.84	39
North Andover, .	3,425	2,370,538	19	703	434	779	2	56	465	636	566	.89	21
Peabody, .	9,530	7,063,650	36	2,168	1,179	2,166	-	122	1,243	1,844	1,505	.82	43
Rockport, .	3,888	2,055,224	13	738	477	864	-	79	490	607	622	.93	18
Rowley, .	1,183	563,510	7	200	120	216	1	18	119	176	154	.88	7
Salem, .	28,090	26,351,328	90	5,236	3,200	3,846	-	431	2,272	3,555	3,140	.88	100
Salisbury, .	4,840	516,530	6	210	131	209	2	10	121	176	156	.89	6
Saugus, .	2,855	2,271,299	14	565	340	620	2	40	388	512	463	.90	15
Swampscott, .	2,471	3,966,792	11	347	226	450	-	44	285	368	334	.91	11
Topsfield, .	1,141	1,055,309	5	159	102	153	10	10	107	132	107	.81	6
Wenham, .	871	542,850	5	145	78	145	1	4	78	106	95	.90	5
West Newbury, .	1,899	953,137	10	286	209	308	-	38	218	266	231	.87	10
Totals, .	263,727	\$205,749,203	913	48,467	29,420	44,710	63	3,535	25,723	38,162	34,281	.90	1,060

ESSEX COUNTY — CONTINUED.

TOWNS.	HIGH SCHOOLS.														
	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'ge wages per month of male teachers in Public Schools.	A'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	No. of High Schools.			How supported.	Length.	Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.			
Amesbury,	1	35	7	—	\$160 00	\$30 00	253-15	9-7	—	1	3	111	Taxation,	10	\$1,600 00
Andover,	1	27	11	4	36 00	38 40	242-12	9-7	—	1	3	52	Not by tax,	9	1,800 00
Beverly,	3	39	12	12	83 33	35 87	356	9-18	—	1	5	199	Taxation,	10	1,500 00
Boxford,	—	8	2	—	—	32 33	49	8-5	—	—	—	—	—	—	—
Bradford,	1	19	3	2	131 58	34 91	114	9-10	—	1	3	71	Taxation,	9-10	1,198 75
Danvers,	4	28	17	13	126 00	34 00	190	9	—	1	3	122	Taxation,	10	1,400 00
Essex,	4	8	3	3	63 75	25 00	76-10	8-10	—	—	—	—	—	—	—
Georgetown,	1	15	4	—	105 55	33 20	108	9	—	1	2	90	Taxation,	9	950 00
Gloucester,	4	109	—	—	155 00	39 40	763-12	9-8	—	1	6	249	Taxation,	9-11	2,000 00
Groveland,	2	13	8	6	75 00	34 66	92-17	9-5	—	1	1	37	Taxation,	9-12	750 00
Hamilton,	1	6	5	5	52 00	34 00	38	7-12	—	—	—	—	—	—	—
Haverhill,	6	87	6	—	135 00	55 00	797-17	9-17	—	1	7	197	Taxation,	9-18	1,900 00
Ipswich,	2	21	13	11	125 00	33 12	152	9-10	1	1	2	75	Part tax,	10	1,500 00
Lawrence,	9	139	7	7	140 00	44 05	1,050	10	—	1	8	251	Taxation,	10	2,500 00
Lynn,	12	143	86	62	145 00	63 75	1,331-16	9-15	—	2	16	475	Taxation,	9-15	{ 2,200 00 1,500 00
Lynnfield,	—	5	5	1	—	37 33	28-10	9-10	—	—	—	—	—	—	—
Manchester,	2	8	3	3	78 00	36 00	67	8-7	—	1	1	38	Taxation,	9-10	745 00
Marblehead,	2	28	8	4	98 24	40 71	153	10-5	—	1	3	93	Taxation,	10-5	1,004 50
Merrimac,	3	22	4	4	77 63	34 58	118-10	8-4	—	1	2	63	Taxation,	9-10	1,000 00
Methuen,	2	24	2	2	83 33	37 82	177	9-6	—	1	3	36	Taxation,	9-10	1,100 00
Middleton,	—	5	4	4	—	38 00	38	9-10	—	—	—	—	—	—	—
Nahant,	2	4	3	2	129 73	54 85	37	9-5	—	1	2	27	Taxation,	9-5	1,200 00

SCHOOL RETURNS.

xxi

Newbury, . . .	11	3	2	-	28 00	63	9	-	-	-	119	-	-	-	-	-
Newburyport, . .	36	9	6	109 52	36 66	357	10-10	-	-	-	46	Part tax,	10-10	-	1,500 00	-
North Andover, . .	20	5	2	86 66	38 15	181	9-10	-	-	-	84	Taxation,	10	10	1,200 00	-
Peabody, . . .	38	23	18	111 00	42 00	360	10	-	-	-	79	Taxation,	10	10	1,400 00	-
Rockport, . . .	22	5	5	72 22	33 22	117	9	-	-	-	2	Taxation,	9	9	650 00	-
Rowley, . . .	7	1	-	-	24 00	63	9	-	-	-	-	-	-	-	-	-
Salem, . . .	93	75	67	177 14	55 65	889	9-9	-	-	-	272	Taxation,	10	10	2,200 00	-
Salisbury, . . .	6	1	-	60 00	28 00	54	9	-	-	-	43	Taxation,	9	9	540 00	-
Saugus, . . .	20	8	7	105 28	38 14	133	9-10	-	-	-	52	Taxation,	9-10	9-10	1,000 00	-
Swampscott, . . .	16	7	6	138 00	45 80	110	10	-	-	-	54	Taxation,	10	10	1,380 00	-
Topsfield, . . .	7	2	1	-	33 61	42-10	8-10	-	-	-	-	-	-	-	-	-
Wenham, . . .	6	5	3	-	34 66	45	9	-	-	-	-	-	-	-	-	-
West Newbury, . .	9	1	-	68 33	29 25	81	8	-	-	-	38	Taxation,	9	9	705 00	-
Totals, . . .	89	358	262	\$118 51	\$44 14	8,730-9	9-5	1	27	96	2,973	-	251-6	9	\$36,423 25	-

ESSEX COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and rooms, for the school-year 1888-89.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for transportation of pupils.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Amesbury,	\$10,500 00	\$460 00	—	\$60 00	\$3,500 00	—	\$470 00	\$30 00	\$15,720 00
Andover, .	11,600 00	637 50	—	80 00	894 32	—	19,965 78	870 92	34,048 52
Beverly, .	19,287 38	96 60	—	40 00	2,149 49	\$516 54	3,549 31	2,196 92	27,836 24
Boxford, .	1,400 00	—	\$100 00	10 00	188 31	—	—	99 90	1,798 21
Bradford, .	6,900 00	270 00	—	20 00	805 52	—	1,280 00	63 83	9,467 59
Danvers, .	13,450 00	673 00	—	—	894 00	—	—	1,221 00	16,241 00
Essex, .	3,000 00	182 00	—	30 50	279 14	—	—	98 47	3,590 11
Georgetown,	4,500 00	300 00	—	50 00	400 00	—	100 00	26 18	5,376 18
Gloucester, .	51,806 14	308 40	2,000 00	205 30	3,710 58	400 00	4,000 00	5,238 06	68,882 50
Groveland,	3,900 00	175 00	—	40 00	322 41	—	1,162 56	569 00	6,168 97
Hamilton, .	1,200 00	45 00	—	8 20	92 99	—	—	194 95	1,541 14
Haverhill,	62,757 19	—	2,000 00	225 00	989 94	—	1,073 27	4,430 97	71,476 37
Ipswich, .	6,700 00	350 00	—	17 00	600 00	—	—	732 57	8,399 57
Lawrence, .	78,058 93	—	2,200 00	240 00	5,324 01	—	—	6,841 00	92,663 94
Lynn, .	111,224 60	1,000 00	2,250 00	296 91	8,363 90	—	8,588 38	8,343 75	140,067 54
Lynnfield, .	800 00	70 00	—	25 00	159 40	—	24 25	23 23	1,101 88
Manchester, .	3,451 59	259 00	—	35 75	501 54	—	126 00	107 49	4,481 37
Marblehead, .	16,025 60	—	—	69 32	2,118 25	—	—	576 05	18,789 22
Merrimac, .	6,400 00	155 00	—	21 00	—	—	2,850 00	260 00	9,686 00
Methuen, .	9,000 00	400 00	—	42 00	1,125 12	—	2,146 97	788 85	13,502 94
Middleton, .	1,200 00	60 00	—	30 00	196 23	—	—	45 72	1,579 00
Nabant, .	4,082 99	275 00	—	93 00	447 12	—	—	174 62	5,148 33
Newbury, .	2,100 00	60 00	—	22 00	406 00	—	—	300 00	2,888 00

Newburyport, .	19,430 91	—	800 00	50 00	1,035 98	—	—	4,889 00	500 00	26,705 89
North Andover, .	10,200 00	365 00	—	50 00	1,055 42	—	—	—	518 94	12,189 36
Peabody, .	20,000 00	600 00	—	50 00	1,425 81	—	—	—	1,435 56	32,511 37
Rockport, .	6,860 36	350 00	—	20 50	798 08	—	—	—	500 99	8,529 93
Rowley, .	1,745 55	75 00	—	—	237 98	—	—	—	197 59	2,256 12
Salem, .	78,190 39	1,200 00	—	140 61	7,981 62	—	—	4,755 00	4,914 89	97,182 51
Salisbury, .	1,707 58	89 66	—	15 00	209 32	—	—	—	83 10	2,104 66
Saugus, .	7,080 39	150 00	—	50 00	1,036 66	—	3,310 48	99 90	71 75	11,799 18
Swampscott, .	6,854 81	248 89	—	21 25	496 32	—	—	1,724 75	724 81	10,070 83
Topsfield, .	1,500 00	95 00	—	10 50	202 42	—	—	—	82 55	1,890 47
Wenham, .	1,500 00	99 00	—	32 00	99 70	—	—	40 00	38 58	1,809 28
West Newbury, .	3,362 73	183 50	—	30 00	357 22	—	—	—	278 49	4,211 94
Totals, .	\$596,777 14	\$9,232 55	\$9,350 00	\$2,130 84	\$48,404 80	\$916 54	\$37,802 54	\$24,516 69	\$42,585 06	\$771,716 16

ESSEX COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1889.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Amesbury,	.	\$333,000 00	—	\$536 07	2	384	\$23,570 00	4	533	—	\$44 47	—
Andover, .	.	12,595 00	—	—	—	—	—	1	11	\$330 00	29 14	—
Beverly, .	.	3,000 00	180 00	840 10	—	—	—	1	20	400 00	—	—
Boxford, .	.	2,537 94	126 87	143 71	—	—	—	1	20	—	204 44	—
Bradford, .	.	—	—	254 00	1	170	9,145 00	2	30	1,985 00	167 62	—
Danvers, .	.	—	—	—	—	—	—	1	20	500 00	34 88	—
Essex, .	.	—	—	—	—	—	—	—	—	—	207 11	—
Georgetown,	.	—	—	154 20	—	—	—	—	—	—	164 60	\$45 00
Gloucester,	.	—	—	—	—	—	—	3	300	1,500 00	—	—
Groveland,	.	—	—	—	—	—	—	—	—	—	212 89	—
Hamilton, .	.	—	—	145 10	—	—	—	—	—	—	203 36	—
Haverhill,	.	—	—	172 00	—	—	—	7	1,000	—	—	—
Ipswich, .	.	11,555 00	350 00	474 00	—	—	—	1	24	200 00	169 36	—
Lawrence,	.	—	—	—	—	—	—	4	1,550	8,000 00	—	—
Lynn, .	.	—	—	—	—	—	—	5	800	4,500 00	—	—
Lynnfield,	.	—	—	88 80	—	—	—	—	—	—	203 27	—
Manchester,	.	—	—	—	—	—	—	—	—	—	7 52	—
Marblehead,	.	10,000 00	—	743 70	—	—	—	2	40	100 00	45 52	—
Merrimac,	.	—	—	170 00	—	—	—	—	—	—	164 92	—
Methuen, .	.	—	—	493 40	—	—	—	—	—	—	175 52	—
Middleton,	.	—	—	126 00	—	—	—	—	—	—	204 19	—
Nahant, .	.	—	—	—	—	—	—	—	—	—	4 28	—
Newbury, .	.	20,000 00	1,000 00	114 60	1	46	3,000 00	—	—	—	209 90	—

SCHOOL RETURNS.

XXV

Newburyport, .	-	65,000 00	3,675 00	-	1	83	-	4	800	3,000 00	79 80	-
North Andover,	-	4,000 00	200 00	-	-	-	-	-	-	-	172 28	-
Peabody, .	-	10,000 00	640 00	826 10	-	-	-	-	-	-	63 39	-
Rockport, .	-	-	-	-	-	-	-	1	12	350 00	175 68	18 50
Rowley, .	-	-	-	-	-	-	-	-	-	-	206 22	-
Salem, .	-	15,425 00	925 50	3,292 46	-	-	-	15	1,312	10,000 00	-	-
Salisbury, .	-	-	-	143 20	-	-	-	-	-	-	306 79	-
Saugus, .	-	-	-	-	-	-	-	-	-	-	166 66	22 50
Swampscott, .	-	-	-	-	-	-	-	-	-	-	11 33	-
Topsfield, .	-	-	-	150 90	-	-	-	-	-	-	155 46	-
Wenham, .	-	-	-	148 50	-	-	-	-	-	-	204 92	-
West Newbury, .	\$40 00	-	-	150 90	-	-	-	-	-	-	209 40	10 00
Totals, .	\$40 00	\$474,517 94	\$19,692 37	\$9,167 74	5	683	\$35,715 00	52	6,472	\$30,865 00	\$4,204 92	\$96 00

FRANKLIN COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 16 and 18 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Ashfield,	1,097	\$472,034	10	163	113	176	3	14	111	139	123	.90	10
Barnardston,	930	400,210	6	153	88	155	2	13	88	102	98	.96	6
Buckland,	1,760	527,168	10	285	204	303	—	20	204	246	222	.90	15
Charlemont,	958	342,960	10	191	132	210	5	14	132	170	156	.92	10
Colrain,	1,605	567,316	16	372	261	408	9	26	249	306	258	.84	16
Conway,	1,573	791,366	12	268	208	279	4	28	195	224	202	.90	12
Deerfield,	3,042	1,225,204	19	598	362	594	1	54	343	440	392	.89	19
Erving,	873	343,901	5	135	90	185	1	10	100	146	126	.86	5
Gill,	860	433,633	7	118	79	143	—	8	92	115	106	.92	7
Greenfield,	4,869	4,751,141	24	941	681	1,096	—	148	604	905	840	.93	30
Hawley,	545	158,385	8	90	54	93	—	3	54	79	73	.92	15
Heath,	568	163,305	8	107	71	117	2	24	71	112	103	.92	8
Leverett,	779	289,775	6	126	79	141	3	18	78	118	108	.92	6
Leyden,	447	176,939	6	80	58	96	—	28	58	74	66	.89	5
Monroe,	176	73,231	3	48	27	59	6	5	28	42	32	.76	3
Montague,	5,629	3,169,295	26	1,402	840	1,276	—	97	744	1,096	1,002	.91	28
New Salem,	832	291,460	8	139	102	153	—	4	105	112	99	.88	8
Northfield,	1,705	742,603	9	259	145	271	3	32	173	224	195	.87	9
Orange,	3,650	1,888,076	22	659	391	858	4	85	492	690	648	.94	24
Rowe,	582	194,583	8	105	55	141	1	19	55	101	89	.88	8
Shelburne,	1,614	876,159	10	203	121	228	2	17	123	200	187	.94	11
Shutesbury,	485	152,520	6	103	64	117	4	9	59	93	80	.86	6
Sunderland,	700	422,789	5	115	65	122	—	24	65	108	93	.86	5

Warwick, .	662	280,170	9	92	63	106	-	18	63	97	92	95	9
Wendell, .	509	200,713	5	81	52	94	1	4	52	64	59	92	5
Whately, .	999	396,056	6	158	99	162	3	5	75	117	99	85	6
Totals,	37,449	\$19,330,992	264	6,991	4,504	7,583	54	727	4,413	6,120	5,548	91	286

HAMPDEN COUNTY.

Agawam, .	2,357	\$1,218,530	11	457	310	507	1	34	310	405	360	89	11
Blandford, .	954	368,651	13	168	120	198	-	30	120	152	141	93	13
Brimfield, .	1,137	462,860	8	141	103	163	2	5	103	130	119	92	8
Chester, .	1,318	518,312	11	225	124	241	4	3	135	180	151	84	11
Chicopee, .	11,516	5,920,470	28	2,225	1,284	1,681	-	125	900	1,136	1,060	93	32
Granville, .	1,193	360,746	10	196	147	231	4	4	147	189	168	89	10
Hampden, .	868	405,610	6	139	87	171	4	2	104	127	103	81	6
Holland, .	229	107,160	2	30	18	36	1	1	17	26	22	85	2
Holyoke, .	27,895	19,121,335	74	6,402	4,157	4,475	17	270	2,630	3,098	2,852	92	89
Longmeadow, .	1,677	1,007,462	11	175	127	313	7	36	234	271	209	77	11
Ludlow, .	1,649	826,744	13	356	252	401	6	35	252	283	252	89	13
Monson, .	3,958	1,491,162	20	701	382	690	5	50	380	537	498	93	20
Montgomery, .	278	138,401	4	43	37	60	-	5	37	47	41	87	4
Palmer, .	5,923	2,590,579	28	1,318	918	1,316	3	94	848	996	889	89	30
Russell, .	847	441,324	6	124	97	131	4	94	94	122	104	85	6
Southwick, .	982	555,085	10	152	97	231	8	35	122	205	157	77	10
Springfield, .	37,575	39,863,255	117	6,416	3,976	5,922	10	572	3,472	4,647	4,316	93	142
Tolland, .	422	162,692	7	57	25	85	4	7	41	68	56	82	7
Wales, .	853	282,754	5	146	83	148	1	3	98	121	111	92	5
Westfield, .	8,961	6,576,514	36	1,722	1,195	1,747	14	155	1,173	1,503	1,363	91	46
West Springfield, .	4,448	3,264,171	24	913	551	1,061	12	63	685	887	792	89	27
Wilbraham, .	1,724	625,715	9	244	185	311	2	10	213	210	183	87	9
Totals,	116,764	\$86,309,532	453	22,350	14,275	20,119	109	1,569	12,115	15,340	13,947	91	512

FRANKLIN COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	A'v'g wages per month of male teachers in Public Schools.	A'v'g wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.
									No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months. Days.	
Ashfield,	1	12	1	\$30 00	\$22 50	65	6-5	1	1	3	64	Part tax,	9	\$850 00
Barnardston,	1	6	2	50 00	28 00	48	6	1	1	1	1	-	9	-
Buckland,	1	14	2	50 00	30 60	88-15	8-15	1	1	1	1	-	1	-
Charlemont,	1	15	1	-	22 53	64	6-4	1	1	1	1	-	1	-
Colrain,	2	23	1	22 00	20 50	118	7	1	1	1	1	-	1	-
Conway,	3	14	2	-	27 16	84-5	7	1	1	1	32	Taxation,	8-10	455 00
Deerfield,	3	25	4	30 66	30 60	146-3	7-6	1	1	1	32	Taxation,	9-10	408 00
Erving,	1	8	1	-	34 00	42-5	8-9	1	1	1	1	-	1	-
Gill,	2	11	2	-	26 28	52-10	7-10	1	1	4	118	Taxation,	9	1,400 00
Greenfield,	2	28	6	155 55	35 33	216	9	1	1	1	1	-	9	-
Hawley,	2	7	1	20 00	20 00	45	6	1	1	1	1	-	1	-
Heath,	1	8	1	27 00	20 25	48	6	1	1	1	1	-	1	-
Leverett,	1	9	4	-	26 40	48-12	8-2	1	1	1	40	Taxation,	3	120 00
Leyden,	1	6	1	26 00	27 50	33	5-10	1	1	1	1	-	1	-
Monroe,	1	5	1	-	22 00	18	6	1	1	1	1	-	1	-
Montague,	2	34	15	97 25	38 44	233	9-19	1	2	4	122	Taxation,	9	{ 850 00 550 00
New Salem,	1	13	3	-	24 20	54-5	6-16	1	1	1	1	-	1	-
Northfield,	1	13	3	48 00	29 55	70-10	7-7	1	1	1	1	-	1	-
Orange,	1	30	5	105 26	30 03	177-10	8-1	1	1	2	47	Taxation,	9-10	1,000 00
Rowe,	1	10	1	-	17 44	44-12	5-10	1	1	1	1	-	1	-
Shelburne,	1	19	4	-	32 00	84-5	8-5	1	1	1	1	-	1	-
Shutesbury,	1	11	1	-	21 72	36	6	1	1	1	1	-	1	-
Sunderland,	3	7	1	44 00	30 00	39-15	7-16	1	1	1	33	Taxation,	5-15	255 00

SCHOOL RETURNS.

xxix

HAMPDEN COUNTY — CONTINUED.																
Warwick, Wendell, Whately, Totals,	20	352	52	27	\$54 99	\$28 01	1,992-17	7-3	5	9	17	488	-	-	63-5	\$5,888 00
Agawam,	2	13	2	1	\$52 00	\$31 50	90-15	8-5	-	-	-	-	-	-	-	-
Blandford,	-	19	3	1	-	23 50	78-5	6-5	1	-	-	-	-	-	-	-
Brimfield,	-	15	5	-	-	27 00	57	7	-	1	4	98	Endow'm't,	10	-	\$1,200 00
Chester,	1	17	3	1	36 00	26 00	77	7	-	-	-	-	-	-	-	-
Chicopee,	4	28	8	5	107 00	41 50	263-7	7-17	-	2	4	{ 39 } 28	Taxation,	10	-	{ 1,400 00 } 1,300 00
Granville,	-	19	6	2	-	28 80	75	7-5	-	-	-	-	-	-	-	-
Hampden,	1	7	-	-	29 43	29 43	51	8-10	-	-	-	-	-	-	-	-
Holland,	-	5	-	-	-	21 00	16	8	-	-	-	-	-	-	-	-
Holyoke,	8	92	29	23	126 84	59 28	734-6	9-15	1	1	6	198	Taxation,	9-12	-	2,000 00
Longmeadow,	3	12	3	3	48 66	30 22	99-10	9	-	-	-	-	-	-	-	-
Ludlow,	1	22	4	-	24 00	27 62	114	8-4	-	-	-	-	-	-	-	-
Monson,	3	20	1	1	40 00	32 50	165	8-5	-	1	4	65	Part tax,	9-15	-	1,500 00
Montgomery,	-	6	3	1	-	20 00	32	8	-	-	-	-	-	-	-	-
Palmer,	6	38	8	7	65 60	33 61	250	9	-	1	3	82	Taxation,	10	-	1,500 00
Russell,	-	9	2	2	-	29 90	39-15	6-12	-	-	-	-	-	-	-	-
Southwick,	4	10	-	-	42 10	24 00	82-10	8-5	-	-	-	-	-	-	-	-
Springfield,	10	132	61	43	182 00	57 38	1,170	10	-	1	13	370	Taxation,	10	-	2,700 00
Tolland,	-	9	-	-	-	19 50	42-5	6-5	-	-	-	-	-	-	-	-
Wales,	-	8	2	1	-	25 00	41-5	8-3	-	-	-	-	-	-	-	-
Westfield,	7	48	34	22	118 24	37 90	302	8-4	1	1	5	200	Taxation,	10	-	1,700 00
West Springfield,	2	30	11	8	104 44	36 23	221-15	9-10	-	1	3	77	Taxation,	10	-	1,200 00
Wilbraham,	-	9	3	3	-	28 00	73-15	8-10	-	-	-	-	-	-	-	-
Totals,	52	568	188	124	\$102 31	\$41 92	4,076-8	8-2	3	9	42	1,157	-	-	79-7	\$14,500 00

FRANKLIN COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for schools, including wages of teachers, fires and school-rooms, for the school-year 1888-89.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for transportation of pupils.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Ashfield, .	\$1,500 00	\$100 00		\$6 00	\$150 00	—	—	—	\$54 18	\$1,810 18
Barnardston, .	2,050 00	76 50	—	—	136 59	—	—	—	49 76	2,312 85
Buckland, .	2,500 00	155 00	—	16 00	235 04	—	—	\$250 15	25 00	3,181 19
Charlemont, .	1,200 00	95 00	—	9 25	152 21	—	—	259 80	5 23	1,721 49
Colrain, .	2,400 00	149 50	—	9 20	291 23	—	—	—	578 90	3,428 83
Conway, .	2,800 00	110 00	—	10 00	267 28	—	—	—	71 86	3,446 14
Deerfield, .	5,000 00	277 00	—	—	413 79	\$187 00	\$3,431 74	—	161 09	9,308 62
Erving, .	1,200 00	57 66	—	10 00	178 88	25 00	—	134 71	4 00	1,585 25
Gill, .	1,400 00	70 00	—	10 00	138 58	—	—	—	64 60	1,683 18
Greenfield, .	12,750 00	550 00	—	30 00	1,500 00	—	1,425 00	—	1,000 00	17,255 00
Hawley, .	900 00	40 75	—	9 00	118 01	25 00	—	—	15 21	1,107 97
Heath, .	800 00	62 20	—	4 00	121 76	—	—	190 51	3 38	1,181 85
Leverett, .	860 00	85 00	—	5 00	157 62	—	—	50 00	109 24	1,266 86
Leyden, .	900 00	43 00	—	10 00	58 13	—	—	—	21 02	1,032 15
Monroe, .	200 00	7 00	—	5 00	86 90	—	—	—	10 00	308 90
Montague, .	11,961 85	368 08	—	20 00	1,699 63	1,255 88	—	—	713 95	16,019 39
New Salem, .	1,103 00	60 25	—	4 50	228 33	25 00	—	—	—	1,418 08
Northfield, .	2,200 00	139 09	—	25 00	290 00	54 00	—	—	200 00	2,908 09
Orange, .	7,700 00	277 52	—	22 50	1,189 45	—	—	—	722 55	9,912 02
Rowe, .	700 00	55 25	—	5 00	60 50	—	—	5 00	7 50	833 25
Shelburne, .	3,000 00	100 00	—	18 00	280 00	25 00	—	—	353 00	3,776 00
Shutesbury, .	600 00	50 00	—	4 00	103 80	—	—	497 74	—	1,255 54
Sunderland, .	1,400 00	65 00	—	8 00	167 98	175 00	—	50 00	129 83	1,995 81

SCHOOL RETURNS.

XXXI

Warwick, .	910 00	—	\$60 00	11 00	59 73	70 00	—	76 54	—	1,187 27
Wendell, .	700 00	34 87	—	10 00	31 87	15 00	—	—	32 00	823 74
Whately, .	1,200 00	75 00	—	—	132 98	—	—	339 25	—	1,747 23
Totals,	\$67,931 85	\$3,103 67	\$60 00	\$261 45	\$8,250 29	\$1,856 88	\$4,856 74	\$1,853 70	\$4,332 30	\$92,506 88

HAMPDEN COUNTY — CONTINUED.

Agawam, .	\$3,800 00	\$111 50	—	\$10 00	\$518 86	—	—	\$565 00	\$73 60	\$5,078 36
Blandford, .	1,800 00	70 00	—	10 00	105 30	—	—	284 45	55 00	2,324 75
Brimfield, .	1,800 00	96 00	—	5 70	168 07	\$44 00	—	—	127 73	1,741 50
Chester, .	1,800 00	133 50	—	30 00	130 51	28 50	—	57 09	41 74	2,221 34
Chicopee, .	21,506 50	—	\$1,700 00	—	1,293 46	—	—	—	992 34	25,492 30
Granville, .	2,300 00	98 49	—	—	97 86	—	\$541 09	—	30 96	3,068 40
Hampden, .	1,325 00	102 00	—	22 00	228 07	—	—	94 30	36 45	1,807 82
Holland, .	200 00	30 00	—	6 00	25 00	103 60	—	—	1 00	365 60
Holyoke, .	68,317 33	150 00	2,067 50	85 00	4,028 08	—	—	9,642 41	2,402 87	86,693 19
Longmeadow, .	3,800 00	158 12	—	25 00	384 37	—	2,000 00	107 63	116 38	6,591 50
Ludlow, .	3,500 00	150 00	—	11 00	344 14	—	—	408 20	170 46	4,583 80
Monson, .	6,500 00	369 50	—	24 00	771 91	—	—	—	150 00	7,815 41
Montgomery, .	500 00	23 00	—	10 00	45 00	72 50	—	—	14 50	665 00
Palmer, .	11,300 00	566 66	—	50 00	1,727 11	1,080 33	—	950 00	835 00	27,009 10
Russell, .	1,000 00	48 00	—	10 00	195 69	41 00	—	—	15 55	1,310 24
Southwick, .	1,500 00	175 00	—	20 00	199 54	—	—	—	65 00	1,959 54
Springfield, .	107,612 45	525 02	3,375 00	107 94	9,443 57	—	34,905 06	4,050 72	5,297 48	165,317 24
Tolland, .	500 00	21 50	—	3 25	37 41	24 00	—	—	3 70	589 86
Wales, .	800 00	52 50	—	5 00	150 00	15 00	—	—	15 00	1,037 50
Westfield, .	22,400 00	700 00	—	—	2,000 00	53 79	—	—	1,637 33	31,439 45
W. Springfield, .	10,557 48	180 82	500 00	4 00	1,255 37	—	4,648 33	600 00	883 15	13,980 82
Wilbraham, .	2,200 00	128 75	—	10 00	253 98	75 00	—	—	72 88	2,740 61
Totals,	\$274,518 76	\$3,890 36	\$7,642 50	\$448 89	\$23,403 30	\$1,537 72	\$52,594 48	\$16,759 80	\$13,037 52	\$393,833 33

FRANKLIN COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1889.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Ashfield,		\$900 00	\$54 00	\$59 95	1	35	\$300 00	1	1	—	\$304 63	\$30 00
Bernardston,		9,769 92	193 00	56 80	1	—	—	1	1	—	304 98	30 00
Buckland,		778 66	45 72	62 10	1	—	—	1	1	—	207 93	—
Charlemont,		800 00	48 00	—	1	—	—	1	—	—	305 84	—
Colrain,		—	—	61 05	1	—	—	2	24	\$50 00	211 93	—
Conway,		—	—	—	1	37	192 25	1	24	300 00	208 86	—
Deerfield,		50,000 00	2,900 00	168 80	1	—	—	1	—	—	167 77	29 00
Erving,		—	—	534 92	1	—	—	1	—	—	305 52	—
Gill,		—	—	—	1	31	11,760 11	1	—	—	304 44	—
Greenfield,		400 00	23 76	—	1	—	—	1	—	—	29 74	14 85
Hawley,		—	—	—	1	—	—	1	—	—	302 92	—
Heath,		—	—	—	1	—	—	1	—	—	303 59	—
Leverett,		—	—	55 76	1	—	—	1	—	—	303 87	—
Leyden,		—	—	86 66	1	—	—	1	—	—	303 02	—
Monroe,	\$31 00	—	—	—	1	—	—	1	—	—	301 27	—
Montague,		—	—	—	1	45	300 00	1	—	—	193 20	45 00
New Salem,		3,500 00	175 00	33 65	1	274	25,261 00	1	—	—	304 06	—
Northfield,		—	—	98 65	1	—	—	1	—	—	207 87	—
Orange,		—	—	—	1	—	—	1	—	—	169 49	—
Rowe,		200 00	12 00	30 18	1	120	1,815 00	2	22	2,095 00	303 30	—
Shelburne,		—	—	59 00	1	—	—	1	—	—	208 54	—
Shutesbury,		250 00	12 50	40 30	1	—	—	1	—	—	303 36	—
Sunderland,		—	—	—	1	—	—	1	—	—	303 69	—

SCHOOL RETURNS.

xxxiii

Warwick, .	-	500 00	20 20	-	-	-	-	-	303 24	-
Wendell, .	-	540 00	32 40	18 20	-	-	-	-	302 89	3 25
Whately, .	-	-	-	-	-	-	-	-	305 87	-
Totals, .	\$31 00	\$67,638 58	\$3,516 58	\$1,366 02	6	542	\$39,628 36	5	\$2,445 00	\$152 10

HAMPDEN COUNTY — CONCLUDED.

Agawam, .	-	-	\$180 00	\$201 37	-	-	-	-	\$163 96	\$25 00
Blandford, .	-	\$3,000 00	-	90 46	-	-	-	-	306 76	-
Brimfield, .	-	-	-	-	-	-	-	-	304 73	-
Chester, .	-	350 00	18 07	118 95	-	-	-	25	\$70 00	-
Chicopee, .	-	-	-	-	-	-	-	3	6,000 00	77 86
Granville, .	-	-	-	-	-	-	-	-	306 09	-
Hampden, .	-	-	-	110 24	-	-	-	-	305 62	-
Holland, .	-	222 22	13 33	23 56	-	-	-	-	300 79	-
Holyoke, .	\$506 75	-	-	1,215 00	-	-	-	2,979	-	-
Longmeadow, .	-	731 00	27 60	170 55	-	-	-	-	209 08	-
Ludlow, .	461 55	-	-	179 23	-	-	-	-	210 47	-
Monson, .	-	23,000 00	1,500 00	877 61	1	85	\$1,750 00	-	170 63	-
Montgomery, .	-	-	-	55 12	-	-	-	-	301 59	-
Palmer, .	-	850 00	34 34	447 57	-	-	-	-	188 41	65 00
Russell, .	-	-	-	92 81	-	-	-	2	304 89	-
Southwick, .	-	15,618 03	923 05	202 40	-	-	-	-	205 24	-
Springfield, .	-	-	-	-	-	-	-	10	14,500 00	-
Tolland, .	-	-	-	52 00	-	-	-	-	302 29	-
Wales, .	-	-	-	54 65	-	-	-	-	304 76	-
Westfield, .	-	-	-	-	-	-	-	1	225 00	-
W. Springfield, .	164 14	118,580 00	5,929 00	414 41	1	-	-	-	56 75	-
Wilbraham, .	-	15,000 00	758 35	133 37	1	400	12,000 00	-	27 42	-
	-	1,308 40	78 50	-	-	-	-	-	206 54	30 00
Totals, .	\$1,132 44	\$178,659 65	\$9,462 24	\$4,439 30	3	485	\$13,750 00	25	\$20,795 00	\$172 86

BOARD OF EDUCATION.

HAMPSHIRE COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Amherst,	4,199	\$3,027,072	19	587	471	758	2	138	471	584	562	.96	23
Belchertown,	2,307	825,127	18	463	278	498	14	53	278	394	355	.90	18
Chesterfield,	698	293,666	7	119	73	131	2	10	71	101	90	.89	7
Cummington,	805	313,604	12	125	76	131	—	20	68	120	108	.90	12
Easthampton,	4,291	2,397,279	20	735	417	781	1	63	462	669	609	.91	24
Enfield,	1,010	606,210	7	153	106	161	1	11	99	122	107	.88	7
Goshen,	336	134,143	4	60	36	77	—	14	36	50	42	.84	4
Granby,	729	458,807	8	123	77	173	3	32	87	129	109	.84	8
Greenwich,	532	265,161	4	60	38	71	1	—	49	65	56	.86	4
Hadley,	1,747	971,852	13	312	194	336	5	10	191	289	269	.93	13
Hatfield,	1,367	886,960	8	239	149	264	3	10	156	216	192	.89	8
Huntington,	1,267	482,395	10	234	141	263	4	12	158	208	179	.86	10
Middlefield,	513	250,450	8	92	69	133	6	6	82	99	90	.91	8
Northampton,	12,896	9,295,715	60	2,401	1,509	2,433	34	134	1,535	2,043	1,869	.91	65
Pelham,	549	168,186	4	99	60	96	1	3	62	76	55	.72	4
Plainfield,	453	149,070	6	68	40	84	1	18	44	75	56	.75	6
Prescott,	448	177,330	5	76	55	92	1	15	55	73	68	.93	5
Southampton,	1,025	493,417	8	151	106	163	1	19	104	127	115	.90	8
South Hadley,	3,949	1,726,625	18	677	491	858	—	85	437	643	603	.94	21
Ware,	6,003	4,012,326	25	1,483	1,036	1,360	4	94	853	996	921	.93	29
Westhampton,	541	245,951	4	110	82	67	1	7	50	54	48	.89	4

SCHOOL RETURNS.

XXXV

Williamsburg, .	2,044	874,482	15	382	239	398	7	45	209	320	283	.88	15
Worthington, .	763	304,408	9	122	83	131	1	17	83	95	83	.87	9
Totals, .	48,472	\$28,360,236	292	8,871	5,826	9,459	93	816	5,640	7,548	6,869	.91	312

HAMPSHIRE COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.						Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	LENGTH.		
														Months.	Days.	
Amherst,	8	22	4	2	\$59 15	\$32 78	166-8	8-15	-	1	4	114	Taxation,	8-18	9	\$1,200 00
Belchertown,	8	25	2	1	36 38	24 00	138	8-13	1	1	1	62	Part tax,	-	-	666 66
Chesterfield,	2	6	1	1	26 75	19 75	49-5	7	-	-	-	-	-	-	-	-
Cummington,	1	7	1	1	48 00	22 00	36	6	-	1	1	57	Taxation,	3	3	144 00
Easthampton,	-	30	4	4	-	33 76	182-8	9-2	-	1	2	48	Taxation,	9-2	9-2	800 00
Enfield,	1	10	1	1	50 00	33 23	58-9	8-7	-	-	-	-	-	-	-	-
Goshen,	1	6	1	1	40 00	21 00	24	6	-	-	-	-	-	-	-	-
Granby,	5	10	4	3	38 54	27 00	62	7-15	-	1	1	41	Taxation,	8	8	485 00
Greenwich,	-	7	1	1	-	29 00	29-10	7-7	-	-	-	-	-	-	-	-
Hadley,	-	19	1	1	-	26 05	105-16	8 2	-	1	3	97	Not by tax,	9-10	9-10	800 00
Hatfield,	-	11	-	-	-	27 31	62	7-15	-	-	-	-	-	-	-	-
Huntington,	2	13	5	2	50 00	24 00	66	8-5	-	1	1	28	Taxation,	5-10	5-10	275 00
Middlefield,	2	12	6	4	22 00	21 02	52-15	6-19	-	-	-	-	-	-	-	-
Northampton,	4	65	6	4	118 81	37 00	512 11	8-14	-	1	5	109	Taxation,	9-11	9-11	1,500 00
Pelham,	1	9	-	-	28 00	26 00	30	7-10	-	-	-	-	-	-	-	-
Plainfield,	1	6	-	-	32 00	19 66	36	6	-	-	-	-	-	-	-	-
Prescott,	1	9	-	-	22 00	22 50	33-15	6-15	-	-	-	-	-	-	-	-
Southampton,	-	11	2	2	-	27 50	62	8	1	1	1	30	Taxation,	6	6	229 00
South Hadley,	3	26	4	4	94 81	38 50	162	9	-	2	2	45	Taxation,	9	9	1,200 00
Ware,	3	37	4	2	83 33	34 47	244-8	9-2	-	1	3	72	Taxation,	10	10	1,000 00
Westhampton,	-	5	1	-	-	25 89	32	8	-	1	-	-	-	-	-	1,200 00

Williamsburg,	2	18	5	3	60 00	30 00	42	8-7	-	-	-	-	-	-	-	-
Worthington,	2	17	-	-	20 00	21 38	62-5	7-10	-	-	-	-	-	-	-	-
Totals, .	47	381	44	26	\$54 13	\$30 10	2,249-10	7-15	4	12	26	737	-	87-11	\$9,499 66	66

HAMPSHIRE COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for schools, including wages of teachers, fuel, care of fires and school-rooms, for the school-year 1888-89.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, books, stationery, etc.	Amount expended for transportation of pupils.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Amherst, .	\$8,595 24	\$150 00	\$400 00	\$10 00	\$1,013 32	\$300 00	—	\$228 21	\$460 54	\$11,157 31
Belchertown, .	4,000 00	269 25	—	10 00	402 66	60 00	—	—	153 57	4,895 48
Chesterfield, .	900 00	50 00	—	10 00	117 50	—	—	11 00	3 00	1,091 50
Cummingtown, .	1,000 00	41 87	—	5 00	115 11	46 00	—	—	236 00	1,443 98
Easthampton, .	8,050 00	225 00	—	15 00	1,000 00	—	—	—	500 00	9,790 00
Enfield, .	2,000 00	127 50	—	8 00	309 87	—	—	—	61 18	2,506 55
Goshen, .	400 00	26 00	—	4 00	30 68	—	—	15 00	1 30	476 98
Granby, .	1,800 00	110 50	—	12 00	171 71	—	—	—	33 00	2,127 21
Greenwich, .	715 18	60 00	—	—	100 00	350 00	—	100 00	—	1,325 18
Hadley, .	3,000 00	183 30	—	7 88	429 83	—	—	—	372 30	3,993 31
Hatfield, .	1,850 00	152 50	—	8 00	260 00	—	—	230 00	225 00	2,725 50
Huntington, .	2,100 00	148 00	—	9 00	113 00	79 00	—	—	47 00	2,496 00
Middlefield, .	800 00	56 25	—	—	85 00	—	—	—	17 33	958 58
Northampton, .	28,200 00	—	1,233 32	84 00	2,685 45	144 94	\$2,800 00	3,915 31	2,451 26	41,514 28
Pelham, .	700 00	—	50 00	—	43 97	—	—	—	90 54	884 51
Plainfield, .	425 00	20 50	—	5 50	69 29	—	—	15 00	6 91	542 20
Prescott, .	500 00	—	47 50	5 00	92 64	20 25	—	—	3 42	668 81
Southampton, .	1,450 00	87 00	—	12 00	46 00	—	—	—	56 68	1,651 68
South Hadley, .	8,550 00	—	—	—	763 70	—	—	—	642 13	9,955 83
Ware, .	13,750 00	566 00	—	—	797 27	—	—	762 49	1,144 31	17,020 07
Westhampton, .	865 60	58 00	—	—	60 00	64 00	—	217 94	18 50	1,284 04

Williamsburg, .	3,000 00	160 00	-	16 00	606 90	-	-	500 00	217 51	4,500 41
Worthington, .	1,000 00	80 00	-	8 00	102 19	-	-	270 00	37 47	1,497 66
Totals, .	\$93,651 02	\$2,571 67	\$1,730 82	\$229 38	\$9,416 09	\$1,064 19	\$2,800 00	\$6,264 95	\$6,778 95	\$124,507 07

HAMPSHIRE COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1889.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Amherst, .	—	\$8,406 82	\$294 80	\$321 17	—	—	—	6	107	\$55 25	\$169 52	—
Belchertown, .	—	6,000 00	255 00	285 10	—	—	—	—	—	—	214 32	—
Chesterfield, .	\$17 00	500 00	25 00	57 64	—	—	—	—	—	—	303 94	—
Cummington, .	—	—	—	59 40	—	—	—	—	—	—	303 93	—
Easthampton, .	—	256,916 24	9,457 65	265 30	1	91	\$4,901 06	—	—	—	176 06	—
Enfield, .	—	—	—	78 44	—	—	—	—	—	—	204 70	—
Goshen, .	—	—	—	—	—	—	—	—	—	—	301 56	—
Granby, .	—	—	—	106 47	—	—	—	—	—	—	303 81	—
Greenwich, .	—	500 00	30 00	38 72	—	—	—	—	—	—	301 68	—
Hadley, .	—	40,000 00	2,990 70	—	1	97	—	—	—	—	210 12	—
Hatfield, .	—	55,000 00	3,716 00	89 75	1	55	480 00	—	—	—	208 03	\$33 75
Huntington, .	—	—	—	—	—	—	—	2	34	300 00	307 59	—
Middlefield, .	—	—	—	79 72	—	—	—	1	13	130 00	303 11	35 00
Northampton, .	—	3,000 00	360 00	987 96	—	—	—	6	277	10,380 00	75 23	82 19
Pelham, .	—	—	—	72 15	—	—	—	—	—	—	303 09	—
Plainfield, .	—	—	—	40 92	—	—	—	—	—	—	302 09	—
Prescott, .	—	—	—	77 94	—	—	—	—	—	—	302 35	—
Southampton, .	—	2,200 00	132 00	105 15	1	—	—	—	—	—	305 24	—
South Hadley, .	—	—	—	306 22	1	—	—	—	—	—	169 90	—
Ware, .	—	—	—	—	—	—	—	1	300	1,000 00	43 90	—
Westhampton, .	—	—	—	46 23	—	—	—	1	5	90 00	302 26	—

SCHOOL RETURNS.

[illegible]

MIDDLESEX COUNTY.

TOWNS.	Population—State Censuses, 1885.	Valuation — 1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Acton,	1,785	\$1,310,947	10	280	189	316	3	34	189	282	254	.90	10
Arlington,	4,673	5,133,554	23	993	647	946	3	117	539	802	785	.91	26
Ashby,	871	472,192	9	111	85	160	4	30	86	134	125	.93	10
Ashland,	2,633	1,340,107	12	438	267	486	8	37	325	418	377	.90	13
Ayer,	2,190	1,258,300	11	439	268	484	—	79	299	413	381	.92	11
Bedford,	930	816,689	5	122	86	161	3	14	86	127	114	.90	5
Belmont,	1,639	2,852,835	9	318	194	330	—	26	186	292	262	.90	13
Billerica,	2,161	1,654,513	10	419	267	425	2	17	279	331	281	.85	10
Boxborough,	348	249,563	4	62	28	72	—	10	31	57	54	.95	4
Burlington,	604	480,949	5	106	73	127	2	8	78	107	82	.77	5
Cambridge,	59,658	62,450,040	235	11,727	7,252	11,496	—	917	7,043	9,756	8,964	.92	241
Carlisle,	526	404,523	5	86	69	112	4	8	60	84	76	.90	4
Chelmsford,	2,304	1,602,565	15	426	266	504	11	56	313	499	438	.88	15
Concord,	3,727	3,246,117	14	619	371	735	—	101	398	589	534	.91	18
Dracut,	1,927	1,285,946	11	343	199	358	3	15	183	276	238	.86	11
Dunstable,	431	291,992	5	68	36	74	—	6	45	57	56	.98	5
Everett,	5,825	6,499,100	30	1,415	852	1,821	—	150	1,238	1,305	1,181	.91	32
Frammingham,	8,275	7,173,570	39	1,620	1,190	1,878	2	151	1,235	1,536	1,424	.93	40
Groton,	1,987	2,771,757	12	276	204	337	6	19	204	291	255	.87	13
Holliston,	2,926	1,527,775	16	461	341	587	6	33	419	467	423	.91	17
Hopkinton,	3,922	2,237,810	21	718	466	800	17	77	440	699	634	.90	22
Hudson,	3,968	2,226,011	14	768	557	886	9	90	481	748	647	.86	19
Lexington,	2,718	3,259,957	11	445	303	400	1	66	268	368	348	.95	13

SCHOOL RETURNS.

xliii

Lincoln,	901	1,630,277	5	165	103	188	1	12	107	150	134	.89	6
Littleton,	1,067	780,715	7	156	106	177	3	32	100	155	146	.94	7
Lowell,	64,107	57,646,775	44	12,296	7,035	10,486	—	857	6,009	8,032	7,171	.89	191
Malden,	16,407	15,420,324	65	3,260	1,925	3,286	—	311	1,587	2,527	2,253	.89	75
Marlborough,	10,941	5,207,339	42	2,397	1,622	2,124	1	149	1,226	1,773	1,709	.96	51
Maynard,	2,703	1,959,396	9	526	310	589	2	22	399	421	388	.92	11
Medford,	9,042	8,929,075	37	1,600	969	1,838	—	149	1,147	1,556	1,454	.93	44
Melrose,	6,101	6,001,566	27	1,263	750	1,364	—	179	730	1,284	1,122	.87	30
Natick,	8,460	5,193,230	41	1,683	1,084	1,859	13	163	1,073	1,700	1,572	.92	44
Newton,	19,759	33,278,642	88	4,087	2,313	4,213	5	558	2,167	3,650	3,384	.93	108
North Reading,	878	499,658	6	145	107	158	1	12	107	132	119	.90	6
Pepperell,	2,587	1,674,945	13	462	270	502	2	47	239	472	412	.87	14
Reading,	3,539	2,555,400	16	583	370	719	—	74	389	607	560	.92	18
Sherborn,	1,391	835,465	8	190	123	213	2	2	126	161	143	.89	8
Shirley,	1,242	639,018	7	202	124	224	3	26	148	154	136	.88	7
Somerville,	29,971	28,765,400	114	5,959	4,206	7,262	9	621	4,443	5,488	5,174	.94	139
Stoneham,	5,659	3,259,831	23	883	534	1,037	8	77	521	847	800	.94	26
Stow,	976	884,062	7	146	111	204	2	18	147	150	133	.89	7
Sudbury,	1,165	1,093,345	7	186	112	218	3	8	117	184	149	.81	7
Tewksbury,	2,333	1,380,142	9	275	179	281	5	21	188	243	197	.81	9
Townsend,	1,846	984,420	12	261	164	300	4	38	173	261	245	.94	12
Tyngsborough,	604	358,217	6	82	45	99	2	7	45	94	88	.94	6
Wakefield,	6,060	4,299,665	24	1,375	876	1,291	—	170	972	1,121	1,006	.90	31
Waltham,	14,609	13,148,810	55	2,763	1,048	2,979	1	246	1,689	2,579	2,351	.91	65
Watertown,	6,238	6,910,988	23	1,243	776	1,238	2	129	748	865	807	.93	31
Wayland,	1,946	1,441,850	11	354	257	384	—	6	257	350	325	.93	12
Westford,	2,193	1,064,618	15	381	270	456	8	15	297	360	333	.93	15
Weston,	1,427	2,076,600	8	219	142	214	3	9	142	212	192	.91	8
Wilmington,	991	647,297	7	186	136	228	5	23	148	190	152	.80	7
Winchester,	4,390	4,407,851	21	804	751	969	—	121	848	771	725	.94	23
Woburn,	11,750	8,575,523	44	2,693	1,559	2,436	—	298	1,236	1,997	1,810	.91	49
Totals,	357,311	\$332,097,256	1,327	69,085	42,585	71,061	169	6,461	42,030	58,187	53,123	.91	1,624

MIDDLESEX COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'ge wages per month of male teachers in Public Schools.	A'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.	
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.		
														Months.		Days.
Acton, .	2	10	6	—	\$60 00	40 00	90	9	—	1	1	41	Taxation,	9	9	\$720 00
Arlington, .	4	22	12	8	135 00	53 00	230	10	—	1	3	66	Taxation,	10	10	1,800 00
Ashby, .	1	10	2	—	60 00	30 00	51-12	5-15	1	1	2	65	Taxation,	3	3	180 00
Ashland, .	2	12	4	—	100 00	35 58	100-10	8-15	—	1	2	44	Taxation,	10	10	1,000 00
Ayer, .	1	12	6	5	100 00	39 40	99	9	—	1	1	50	Taxation,	10	10	1,000 00
Bedford, .	—	7	2	1	—	39 00	51	10	—	1	1	13	Taxation,	10	10	500 00
Belmont, .	2	11	3	2	155 00	43 86	72	8	—	1	2	29	Taxation,	8	—	1,550 00
BillERICA, .	—	13	5	5	—	36 00	92-8	9-5	—	—	—	—	—	—	—	—
Boxborough, .	—	8	2	2	—	30 50	30	7-10	—	1	1	19	Taxation,	3-15	—	168 00
Burlington, .	1	6	1	1	48 00	28 00	39	7-16	1	1	21	590	Taxation,	10	10	3,000 00
Cambridge, .	21	264	175	155	169 52	61 45	2,350	10	—	2	—	—	—	—	—	3,000 00
Carlisle, .	—	10	—	—	—	30 00	45	9	—	—	—	—	—	—	—	—
Chelmsford, .	4	18	7	4	84 00	34 00	117-13	7-16	—	2	1	82	Taxation,	8	8	722 50
Concord, .	2	19	4	2	194 90	60 95	136-10	9-15	—	1	3	103	Taxation,	9-15	—	672 00
Dracut, .	3	14	2	—	34 00	32 22	86-15	7-18	2	—	—	—	—	—	—	1,800 00
Dunstable, .	—	8	1	1	—	29 00	31-10	6-6	2	—	—	—	—	—	—	—
Everett, .	2	34	6	4	128 75	45 35	277	9-11	—	1	3	104	Taxation,	10	10	1,325 00
Frammingham, .	2	38	19	15	135 00	38 50	352-15	9-1	—	1	4	149	Taxation,	9-15	—	1,000 00
Groton, .	1	16	3	3	100 00	38 00	101-10	8-9	—	1	2	49	Taxation,	10	10	1,000 00
Holliston, .	1	18	10	7	110 53	38 69	125	8-3	1	1	2	38	Taxation,	9-10	—	1,050 00
Hopkinton, .	1	22	6	3	100 00	37 66	175-15	8-7	—	1	2	80	Taxation,	10	10	1,000 00
Hudson, .	2	20	6	3	116 66	38 23	117	8-3	—	1	2	84	Taxation,	9	9	1,200 00
Lexington, .	1	12	6	6	150 00	52 50	110	10	—	1	2	50	Taxation,	10	10	1,500 00

SCHOOL RETURNS.

xlv

	3	5	687	492	\$138 59	\$50 24	12,417-9	11	47	161	5,294	-	424-15	\$62,917 50
Lincoln, . . .	1	2	86	47	167 00	39 61	48 59-16	-	1	1	28	Taxation, Part tax,	9-10	700 00
Littleton, . . .	16	8	86	47	167 00	57 77	426-16	-	1	1	40	Taxation,	8-8	672 00
Lowell, . . .	4	180	26	21	162 50	52 64	582-3	-	1	13	589	Taxation,	10	2,200 00
Malden, . . .	3	71	7	7	150 00	46 50	378	-	1	6	243	Taxation,	8-19	2,200 00
Marlborough, . . .	1	57	4	7	150 00	40 00	378	-	1	4	159	Taxation,	9	1,700 00
Maynard, . . .	8	11	7	3	102 56	40 00	83-10	-	1	2	55	Taxation,	9-15	1,000 00
Medford, . . .	1	39	13	10	121 87	50 60	370	-	1	6	139	Taxation,	10	2,200 00
Melrose, . . .	1	29	17	8	200 00	53 50	270	-	1	4	132	Taxation,	10	2,000 00
Natick, . . .	1	51	23	16	123 65	37 81	337	-	1	4	107	Taxation,	10	1,340 00
Newton, . . .	17	91	45	40	192 50	65 44	880	-	1	15	465	Taxation,	10	3,000 00
North Reading, . . .	1	8	4	4	56 00	29 43	53-16	-	1	1	21	Taxation,	9	504 00
Pepperell, . . .	2	12	1	1	70 00	35 25	127	-	1	1	45	Taxation,	10	1,000 00
Reading, . . .	1	17	9	8	157 89	40 70	152	-	1	1	100	Taxation,	9-10	1,500 00
Sherborn, . . .	1	10	2	-	40 00	34 50	67-2	-	*1	2	78	Part tax,	9-5	1,000 00
Shirley, . . .	3	11	8	8	58 83	32 86	55-5	1	-	-	-	-	-	-
Somerville, . . .	10	129	52	-	168 33	55 00	1,117	-	1	10	559	Taxation,	10	2,400 00
Stonham, . . .	2	27	9	9	170 00	44 37	216-2	-	1	3	88	Taxation,	9-12	1,700 00
Stow, . . .	2	9	3	1	90 00	35 00	63	-	1	1	43	Not by tax,	9	800 00
Sudbury, . . .	-	10	8	8	-	38 28	55-11	-	-	-	-	-	-	-
Tewksbury, . . .	-	11	4	4	-	37 20	77	-	1	1	33	Taxation,	9-10	514 00
Townsend, . . .	1	19	1	1	35 00	31 00	85	-	1	1	48	Taxation,	10	600 00
Tyngsborough, . . .	-	7	1	1	-	34 00	36	-	1	1	8	Taxation,	6	500 00
Wakefield, . . .	2	29	8	6	122 50	44 75	240	-	1	4	132	Taxation,	10	1,700 00
Waltham, . . .	7	62	30	30	140 84	58 26	543-1	-	1	6	192	Taxation,	10	2,000 00
Watertown, . . .	6	31	9	4	144 17	55 67	208-14	-	3	4	84	Taxation,	9-16	2,000 00
Wayland, . . .	2	11	4	4	80 00	37 00	99	3	1	4	-	-	-	-
Westford, . . .	-	19	4	2	-	32 00	135	-	-	-	-	-	-	-
Weston, . . .	1	8	3	3	133 33	45 00	72	-	-	-	-	-	-	-
Wilmington, . . .	2	5	2	1	64 00	31 00	52-15	-	1	1	33	Taxation,	9	1,200 00
Winchester, . . .	2	31	7	6	150 00	50 00	210	-	1	1	26	Taxation,	8-15	700 00
Woburn, . . .	5	49	6	5	125 00	49 25	435	-	1	3	40	Taxation,	10	1,800 00
Totals, . . .	161	1,661	687	492	\$138 59	\$50 24	12,417-9	11	47	161	5,294	-	424-15	\$62,917 50

* United with Sawin Academy.

MIDDLESEX COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1888-89.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, books, stationery, etc.	Amount expended for transportation of pupils.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Acton,	\$4,100 00	—	\$125 00	\$50 00	\$379 32	—	—	\$70 00	\$145 35	\$4,869 67
Arlington,	19,419 23	\$250 00	—	—	2,208 09	—	—	2,149 04	754 19	24,780 55
Ashby,	1,800 00	—	100 00	—	250 11	—	—	—	105 86	2,255 97
Ashland,	5,000 00	129 75	—	—	500 00	—	—	100 00	300 00	6,029 75
Ayer,	4,500 00	150 00	—	17 50	672 94	—	\$466 46	38 91	43 38	5,889 19
Bedford,	2,200 00	105 00	—	9 00	250 00	\$431 00	—	—	28 84	3,023 84
Belmont,	7,375 00	155 00	—	30 00	474 62	—	—	242 06	90 20	8,366 88
Billerica,	4,000 00	230 00	—	50 00	332 00	5 50	—	—	196 00	4,813 50
Boxborough,	800 00	40 00	—	8 00	182 79	—	—	—	22 47	1,053 26
Burlington,	1,000 00	71 00	—	13 75	112 93	—	—	—	178 50	1,376 18
Cambridge,	198,130 04	1,825 00	3,000 00	137 30	11,078 87	—	22,683 48	2,029 87	10,837 54	249,722 10
Carlisle,	1,000 00	35 00	—	15 00	—	—	—	65 00	—	1,115 00
Chelmsford,	5,000 00	60 00	200 00	28 87	521 57	—	—	638 64	411 33	6,860 41
Concord,	11,825 58	50 00	250 00	95 55	1,081 51	1,481 40	11,431 87	1,627 20	521 03	28,364 14
Dracut,	3,000 00	—	150 00	44 50	342 50	94 50	—	—	38 22	3,669 72
Dunstable,	800 00	39 00	—	9 00	247 08	111 00	—	—	121 45	1,327 53
Everett,	18,900 00	375 00	—	15 00	2,350 00	—	6,000 00	750 00	910 00	29,300 00
Frammingham,	23,500 00	—	1,000 00	75 00	2,350 00	450 00	—	400 00	2,000 00	29,775 00
Groton,	5,200 00	200 00	—	18 75	424 52	—	—	275 31	353 10	6,471 68
Holliston,	6,595 09	—	—	38 75	941 57	161 90	—	—	749 63	8,486 94
Hopkinton,	7,000 00	300 00	—	30 00	1,200 00	—	—	—	300 00	8,830 00
Hudson,	8,800 00	267 00	—	36 47	198 00	—	—	—	470 02	9,771 49
Lexington,	10,000 00	350 00	350 00	—	1,035 92	—	—	—	—	11,735 92

SCHOOL RETURNS.

xlvii

Lincoln, .	2,500 00	100 00	—	25 00	424 06	216 00	—	335 00	43 74	3,643 80
Littleton, .	2,500 00	—	100 00	40 00	141 50	—	—	1,766 69	—	4,548 19
Lowell, .	173,501 94	1,200 00	2,600 00	739 25	13,821 01	—	36,980 20	18,261 91	9,201 98	256,306 29
Malden, .	53,967 40	200 00	2,100 00	35 00	6,506 28	—	27,529 55	—	3,377 66	93,715 89
Marlborough, .	25,720 15	300 00	1,747 14	7 00	2,289 37	385 42	—	2,000 00	218 45	32,667 53
Maynard, .	6,191 51	225 00	—	—	424 85	—	—	—	292 09	7,133 45
Medford, .	35,173 59	400 00	1,000 00	10 00	2,103 98	—	61,500 00	438 60	2,312 51	102,938 68
Melrose, .	21,737 65	575 04	—	25 00	1,713 07	—	—	—	1,800 37	25,851 13
Natick, .	23,000 00	500 00	—	13 00	1,500 00	—	5,000 00	500 00	1,000 00	31,513 00
Newton, .	104,772 69	300 00	2,800 00	117 50	11,243 58	390 00	4,543 93	7,360 69	863 44	132,391 83
North Reading, .	1,800 00	115 00	—	20 00	239 68	—	—	25 00	135 94	2,335 62
Pepperell, .	5,600 00	245 00	—	23 00	—	—	5,000 00	—	600 00	11,468 00
Reading, .	9,800 00	375 00	—	35 00	600 00	—	—	850 00	—	12,060 00
Sherborn, .	2,625 00	177 50	—	25 50	245 84	—	—	—	225 35	3,299 19
Shirley, .	2,000 00	150 00	—	18 00	247 19	67 00	—	—	184 86	2,667 05
Somerville, .	98,698 78	—	2,416 67	97 85	—	—	—	—	13,993 75	115,207 05
Stoneham, .	14,000 00	400 00	—	6 00	1,436 86	—	—	953 20	379 57	17,475 63
Stow, .	2,000 00	—	100 00	26 40	463 99	—	—	—	78 80	2,669 19
Sudbury, .	2,000 00	153 12	—	10 00	569 12	150 00	—	126 47	112 67	3,121 38
Tewksbury, .	3,000 00	300 00	—	17 00	483 54	—	2,107 94	122 41	140 23	6,171 12
Townsend, .	3,500 00	—	150 00	15 00	327 89	305 00	—	221 91	174 81	4,694 61
Tyngsborough, .	1,000 00	—	75 00	18 00	198 30	79 00	—	—	25 00	1,395 30
Wakefield, .	17,000 00	350 00	—	72 00	1,374 22	—	1,500 00	514 92	427 28	21,238 42
Waltham, .	55,812 95	100 00	2,200 00	23 00	3,500 00	—	—	5,864 88	2,198 47	69,639 30
Watertown, .	21,826 83	300 00	500 00	—	1,737 70	—	—	—	1,655 45	26,019 98
Wayland, .	4,800 00	125 00	—	20 00	600 00	—	—	300 00	50 00	5,895 00
Westford, .	4,800 00	150 00	—	42 40	263 06	—	—	105 03	159 44	5,519 93
Weston, .	5,700 00	150 00	—	—	350 00	—	—	—	—	6,200 00
Wilmington, .	2,000 00	145 00	—	12 33	359 42	—	7,500 00	—	181 48	10,198 23
Winchester, .	16,011 37	—	900 00	16 00	1,620 67	203 25	—	—	1,745 62	20,496 91
Woburn, .	31,600 00	—	2,000 00	132 00	2,000 00	150 00	—	1,390 00	2,078 00	39,350 00
Totals, .	\$1,104,584 80	\$11,667 41	\$23,863 81	\$2,363 67	\$83,919 52	\$4,680 97	\$192,243 43	\$49,522 74	\$62,634 07	\$1,535,480 42

MIDDLESEX COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 23, 1889.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Acton,	—	—	—	\$361 40	—	—	—	2	175	\$1,000 00	\$158 54	—
Arlington,	—	\$5,354 00	\$321 24	—	—	—	—	—	—	—	30 98	—
Ashby,	—	—	—	123 51	—	—	—	—	—	—	303 97	—
Ashland,	—	—	—	—	—	—	—	—	—	—	163 27	—
Ayer,	—	—	—	187 81	—	—	—	—	—	—	163 55	—
Bedford,	—	—	—	—	—	—	—	—	—	—	203 84	—
Belmont,	—	—	—	—	—	—	—	—	—	—	160 47	—
Billerica,	—	300 00	18 00	—	1	38	\$228 00	1	30	12,000 00	163 49	—
Boxborough,	—	—	—	—	—	—	—	—	—	—	301 33	16 00
Burlington,	—	—	—	114 00	—	—	—	18	1,785	46,687 00	303 55	—
Cambridge,	\$119 00	10,000 00	914 11	—	—	—	—	—	—	—	—	—
Carlisle,	—	500 00	30 00	—	—	—	—	—	—	—	302 32	—
Chelmsford,	130 00	—	—	357 58	—	—	—	—	—	—	163 36	—
Concord,	—	5,300 00	264 00	—	—	—	—	2	20	1,750 00	18 57	—
Danvers,	—	—	—	135 00	—	—	—	—	—	—	160 57	—
Dunstable,	—	—	—	—	—	—	—	—	—	—	302 25	—
Everett,	—	—	—	—	—	—	—	—	—	—	38 63	—
Framingham,	—	—	—	1,176 78	1	126	150 00	1	35	1,800 00	49 45	100 00
Groton,	—	32,620 00	1,600 00	—	2	76	27,130 00	—	4	—	158 41	—
Holliston,	—	—	—	—	—	—	—	—	—	—	166 06	—
Hopkinton,	—	5,836 00	350 16	477 14	—	—	—	—	—	—	174 00	—
Hudson,	—	—	—	220 30	—	—	—	—	—	—	175 87	—
Lexington,	—	—	—	—	—	—	—	6	—	—	165 36	—

SCHOOL RETURNS.

xlix

Lincoln, .	-	3,500 00	-	210 00	52 33	-	-	-	-	-	-	155 24	-
Littleton, .	-	-	-	-	151 15	1	110	-	-	-	-	205 59	-
Lowell, .	-	-	-	-	-	-	-	9	3,600	16,000 00	-	-	-
Malden, .	-	-	-	-	-	-	-	3	714	-	-	-	-
Marlborough, .	-	2,660 75	153 04	-	-	-	-	*1	400	600 00	-	75 38	91 58
Maynard, .	-	-	-	-	-	-	-	-	-	-	-	166 16	-
Medford, .	-	-	-	-	-	-	-	2	35	2,100 00	-	48 15	45 26
Melrose, .	-	-	-	-	-	-	-	5	50	-	-	39 87	-
Natick, .	-	-	-	-	-	-	-	-	-	-	-	49 93	-
Newton, .	-	-	-	-	2,690 40	3	312	-	134	8,306 50	-	-	-
North Reading, .	-	-	-	-	85 33	-	-	-	-	-	-	204 54	-
Pepperell, .	-	-	-	-	-	-	-	-	-	-	-	163 71	-
Reading, .	-	-	-	-	-	-	-	2	12	225 00	-	168 82	103 58
Sherborn, .	-	19,896 00	1,124 00	-	115 99	1	78	-	7	50 00	-	206 48	25 00
Shirley, .	-	5,768 41	-	-	117 88	-	-	1	6	-	-	205 94	52 31
Somerville, .	-	-	-	-	-	-	-	-	-	-	-	-	-
Stoneham, .	-	-	-	-	-	-	-	-	-	-	-	28 22	-
Stow, .	-	15,787 03	1,448 53	-	138 18	-	-	-	-	-	-	205 71	-
Sudbury, .	-	300 00	12 00	-	174 84	-	-	-	-	-	-	155 90	-
Tewksbury, .	-	-	-	-	-	-	-	-	-	-	-	157 46	-
Townsend, .	-	-	-	-	-	-	-	-	-	-	-	158 28	-
Tyngsborough, .	-	2,407 94	117 27	-	67 12	-	-	-	-	-	-	302 44	17 06
Wakefield, .	-	-	-	-	220 00	-	-	-	-	-	-	41 52	-
Waltham, .	-	-	-	-	-	1	45	-	41	830 00	-	-	-
Watertown, .	-	-	-	-	-	-	-	1	400	1,600 00	-	36 63	-
Wayland, .	-	200 00	12 00	-	179 07	-	-	-	-	-	-	162 22	-
Westford, .	-	46,000 00	2,300 00	-	-	1	60	-	-	-	-	163 36	-
Weston, .	-	-	-	-	-	-	-	-	-	-	-	157 55	-
Wilmington, .	-	-	-	-	146 64	-	-	-	-	-	-	205 49	-
Winchester, .	-	-	-	-	-	-	-	2	20	200 00	-	26 19	26 19
Woburn, .	-	1,200 00	600 00	-	-	1	-	2	600	-	-	88 46	-
Totals, .	\$249 00	\$157,630 13	\$9,474 35	\$7,292 45	845	12	\$59,307 00	74	8,076	\$93,448 50	\$7,407 08	\$562 48	

* Parochial.

NANTUCKET COUNTY

TOWNS.	Population—State Census, 1885.	Valuation — 1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 15 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 5 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Nantucket,	3,142	\$2,960,538	12	560	470	400	1	20	375	353	347	.98	13

NORFOLK COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation — 1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 15 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 5 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Avon,	—	\$527,375	5	226	155	264	1	11	147	218	197	.90	5
Bellingham,	1,198	613,200	8	220	135	237	4	8	135	190	174	.91	8
Braintree,	4,040	3,064,125	18	658	408	790	—	65	463	615	569	.92	19
Brookline,	9,196	41,246,900	44	1,867	1,037	2,110	40	189	1,037	1,615	1,502	.93	56
Canton,	4,380	3,540,727	15	779	495	547	8	41	302	419	399	.95	17
Cohasset,	2,216	3,444,875	13	345	240	401	1	41	243	348	322	.93	15
Dedham,	6,641	5,273,965	39	1,248	813	1,317	—	119	781	1,145	1,070	.93	42
Dover,	664	641,985	4	90	61	113	5	8	70	90	83	.92	4
Foxborough,	2,814	1,402,121	12	455	340	557	2	50	320	398	376	.95	14
Franklin,	3,983	2,154,900	20	924	591	792	11	61	518	695	630	.91	21
Holbrook,	2,334	1,066,270	10	435	268	475	—	40	284	448	410	.92	11
Hyde Park,	8,376	6,874,500	38	1,763	1,400	2,248	3	315	1,299	1,453	1,365	.94	38
Medfield,	1,594	1,181,130	6	200	119	235	—	32	129	192	175	.91	6
Medway,	2,777	1,307,165	14	449	336	623	4	54	343	501	459	.92	15
Milford,	683	467,955	4	124	76	140	—	6	89	105	96	.91	4
Milton,	3,555	13,283,583	15	630	386	696	3	63	408	558	518	.93	17
Needham,	2,586	2,081,082	15	489	304	630	3	52	360	520	458	.88	16

Norfolk, .	825	467,318	6	178	109	202	2	23	113	161	147	.91	6
Norwood, .	2,921	2,329,102	13	555	390	588	-	60	374	530	488	.92	14
Quincy, .	12,145	9,757,960	59	3,296	1,877	3,119	5	180	1,655	2,485	2,368	.95	61
Randolph, .	3,807	2,010,170	16	630	439	712	16	50	432	623	564	.91	18
Sharon, .	1,328	1,107,677	7	217	112	253	-	28	112	208	190	.91	7
Stoughton, .	5,173	2,031,731	13	766	453	585	8	57	356	504	447	.89	17
Walpole, .	2,443	1,774,129	13	426	280	539	-	46	300	392	360	.92	14
Wellesley, .	3,013	5,575,782	11	427	256	468	1	55	253	391	348	.89	15
Weymouth, .	10,740	5,901,114	47	1,739	1,144	2,203	-	215	1,175	1,941	1,747	.90	52
Wrentham, .	2,710	1,346,468	14	447	274	485	6	33	290	404	372	.92	14
Totals, .	102,142	\$120,473,309	479	19,583	12,498	21,329	122	1,902	11,988	17,149	15,834	.92	526

NANTUCKET COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'vge wages per month of male teachers in Public Schools.	A'vge wages per month of female teachers in Public Schools.	Aggregate of months all have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.						Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	LENGTH.		
														Months.	Days.	
Nantucket, . .	2	13	3	3	\$100 00	\$28 25	116-6	9-8	1	2	47	Taxation,	10	\$1,000 00		

NORFOLK COUNTY — CONTINUED.

Avon, . .	1	4	3	3	\$88 88	\$37 00	45	9	1	1	1	1	—	—	—
Bellingham, . .	2	11	6	6	38 00	33 61	66	8-15	1	1	2	74	Taxation,	9-16	\$1,200 00
Braintree, . .	4	15	10	10	78 25	36 80	173-14	9-14	1	1	5	128	Taxation,	10	2,600 00
Brookline, . .	10	53	12	12	190 00	67 19	420	9-10	1	1	2	57	Taxation,	10	1,200 00
Canton, . .	4	17	3	3	107 50	46 84	150	10	1	1	2	77	Taxation,	9-15	1,200 00
Cohasset, . .	3	12	6	5	190 00	39 00	126-15	9-15	1	1	5	157	Taxation,	10	1,800 00
Dedham, . .	7	38	15	15	109 00	47 86	390	10	1	1	1	18	Taxation,	9	360 00
Dover, . .	—	4	1	1	—	37 50	36	9	1	1	1	54	Taxation,	9	1,250 00
Foxborough, . .	2	12	2	2	88 44	42 68	108	9	1	1	2	62	Taxation,	10	1,000 00
Franklin, . .	3	21	4	4	68 00	37 40	180	9	1	1	2	91	Taxation,	10	1,200 00
Holbrook, . .	2	16	5	5	120 00	38 75	100	10	1	1	2	168	Taxation,	10	2,000 00
Hyde Park, . .	7	38	15	11	122 85	45 14	338-18	9-8	4	1	4	38	Taxation,	9-10	1,050 00
Medfield, . .	1	9	5	5	110 00	43 00	56-15	9-9	1	1	1	68	Taxation,	10	1,000 00
Medway, . .	2	13	5	3	70 00	33 66	127	9-1	1	1	2	—	—	—	—
Millis, . .	—	6	4	2	—	35 00	36	9	1	1	2	72	Taxation,	10	1,800 00
Milton, . .	5	12	6	6	126 00	56 87	150	10	1	1	2	64	Taxation,	10	1,200 00
Needham, . .	2	16	6	3	96 00	45 86	140-10	9-7	1	1	2	—	—	—	—

SCHOOL RETURNS.

	-	6	3	2	-	37 00	48-1	8	-	1	2	-	Taxation,	-	-
Norfolk,	.														
NNorwood,	.	4	15	11	11	121 05	123	9-10	-	-	-	42	Taxation,	10	1,200 00
Quincy,	.	6	55	15	14	111 67	590	10	-	1	3	162	Taxation,	10	1,400 00
Randolph,	.	3	18	6	6	112 28	45 09	9-10	-	1	3	87	Part tax,	9-10	1,200 00
Saron,	.	1	10	4	4	79 00	33 75	9-1	-	1	1	47	Taxation,	9-10	750 00
Stoughton,	.	5	12	6	4	85 04	36 93	9	-	1	2	58	Taxation,	9	1,200 00
Walpole,	.	1	18	11	8	100 00	38 35	9-16	-	1	2	50	Taxation,	10	1,000 00
Wellesley,	.	3	12	5	3	104 53	52 34	9-5	-	1	3	69	Taxation,	10	1,700 00
Weymouth,	.	10	48	9	8	98 57	36 00	9 16	-	2	5	190	Taxation,	9-16	{ 1,200 00 1,200 00 720 00 }
Wrentham,	.	3	17	-	-	80 00	36 05	8-19	-	1	1	17	Taxation,	9	
Totals,	.	91	508	178	145	\$44 47	4,556-18	9-7	4	24	56	1,850	-	223-17	\$30,430 00

NANTUCKET COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including board, fuel, care of teachers, and school- rooms, for the school- year 1888-89.	Expense of supervision by school committee.	Salary of Superin- tendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for transportation of pu- pils.	Amount expended for new school-houses.	Amount expended for alterations and perma- nent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by tax- ation.
Nantucket,	\$4,940 29	\$100 00	—	\$25 00	\$240 45	—	—	—	\$112 12	\$5,417 86

NORFOLK COUNTY — CONTINUED.

Avon,	\$2,002 52	\$60 00	—	\$20 00	\$239 22	—	—	—	\$173 41	\$2,495 15
Bellingham,	2,165 00	110 00	—	27 00	196 37	—	—	—	65 00	2,563 37
Braintree,	8,400 00	—	\$1,200 00	—	851 07	—	—	\$100 00	525 00	11,076 07
Brookline,	52,339 43	640 00	2,500 00	26 00	2,115 00	\$8 50	\$46,417 00	2,312 00	750 00	107,137 93
Canton,	10,619 64	—	1,200 00	—	1,392 01	—	—	—	451 18	13,662 83
Colasset,	7,341 10	425 00	—	25 00	887 29	336 90	3,840 00	—	316 76	9,332 05
Dedham,	27,959 73	—	1,600 00	—	1,500 00	—	—	—	2,887 27	37,787 00
Dover,	1,965 00	—	70 00	15 00	143 00	154 00	—	—	10 00	2,357 00
Foxborough,	6,250 00	275 00	—	250 00	500 00	—	3,250 00	50 00	150 00	10,725 00
Franklin,	8,500 00	525 00	—	40 00	1,634 56	—	—	—	458 58	11,158 14
Holbrook,	6,600 00	245 00	—	—	1,125 00	—	—	—	—	7,970 00
Hyde Park,	27,503 57	700 00	—	35 00	3,023 04	—	5,000 00	—	3,998 37	40,259 98
Medfield,	3,491 32	105 00	—	5 00	477 48	—	—	547 75	3 45	4,630 00
Medway,	5,500 00	254 50	—	25 00	576 63	354 70	—	—	600 00	7,310 83
Millis,	1,737 13	70 00	—	—	161 98	130 00	—	—	149 50	2,248 61
Milton,	15,820 89	—	1,300 00	—	1,955 26	—	11,000 00	—	258 95	30,335 10
Needham,	8,900 00	255 00	—	17 75	770 84	—	—	262 08	348 95	10,554 62

SCHOOL RETURNS.

lv

Norfolk, .	1,500 00	100 25	—	—	307 72	—	—	—	61 09	1,969 06
Norwood, .	11,300 00	180 00	—	—	906 78	—	—	—	344 22	12,761 00
Quincy, .	38,113 86	—	—	—	7,947 38	—	—	—	3,117 36	51,160 32
Randolph, .	9,450 00	355 00	1,558 26	394 50	1,718 66	—	—	212 26	338 58	12,074 50
Sharon, .	2,800 00	139 34	—	—	215 93	—	—	288 84	—	3,471 11
Stoughton, .	6,826 21	384 50	—	—	642 16	—	—	222 85	154 79	8,280 51
Walpole, .	7,320 00	—	780 00	—	550 00	—	—	3,123 16	250 00	12,032 16
Wellesley, .	11,513 36	225 00	—	—	885 49	221 40	—	—	353 33	13,198 58
Weymouth, .	26,612 33	362 75	1,800 00	—	3,635 30	1,046 49	—	—	2,267 83	36,174 70
Wrentham, .	6,000 00	409 40	—	—	500 00	—	—	—	679 21	7,601 61
Totals, .	\$318,531 09	\$5,820 74	\$12,008 26	\$793 71	\$34,858 17	\$2,646 49	\$69,507 00	\$7,448 94	\$18,712 83	\$470,327 23

NANTUCKET COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1889.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Nantucket,	1	1	-	-	1	60	\$480 00	1	15	\$150 00	\$167 84	\$50 00

NORFOLK COUNTY — CONCLUDED.

Avon,	1	1	-	-	1	94	\$1,500 00	8	150	-	\$206 47	-
Bellingham,	1	1	\$350 00	\$108 12	1	-	-	-	-	-	172 00	-
Braintree,	1	1	-	1,106 20	1	-	-	-	-	-	-	-
Brookline,	1	1	-	-	-	-	-	-	-	-	-	-
Canton,	1	1	-	701 51	-	-	-	1	400	-	24 76	-
Cohasset,	1	1	45 90	281 08	-	-	-	3	-	-	11 87	\$24 31
Dedham,	1	1	-	-	-	-	-	-	-	-	38 34	-
Dover,	1	1	-	102 34	-	-	-	-	-	-	203 36	-
Roxborough,	1	1	-	397 66	-	-	-	-	-	-	163 96	-
Franklin,	1	1	-	1,012 76	1	340	3,223 50	1	30	\$250 00	179 52	44 88
Holbrook,	1	1	-	-	-	-	-	-	-	-	163 78	100 00
Hyde Park,	1	1	-	-	-	-	-	-	-	-	53 36	55 84
Medfield,	1	1	164 11	-	-	-	-	2	533	590 00	155 65	-
Medway,	1	1	-	294 00	-	-	-	1	27	-	164 92	-
Millis,	1	1	6 00	-	-	-	-	-	-	-	303 33	-
Milton,	1	1	2,500 00	-	-	48	4,950 00	-	-	-	-	-
Needham,	1	1	-	-	1	-	-	-	-	-	165 33	-

Norfolk, .	-	-	-	159 23	-	-	-	-	-	-	2	17	-	305 46	-
Norwood, .	-	-	-	-	-	-	-	-	-	-	2	45	280 00	167 36	45 00
Quincy, .	-	60,000 00	2,600 00	-	1	-	-	-	-	-	1	45	2,000 00	100 08	-
Randolph, .	-	10,600 00	668 00	1,549 40	-	-	-	-	-	-	-	-	-	170 70	-
Sharon, .	-	2,360 00	141 60	153 00	-	-	-	-	-	-	-	-	-	156 86	-
Stoughton, .	-	-	-	-	-	-	-	-	-	-	*1	300	-	180 69	-
Walpole, .	-	-	-	347 54	-	-	-	-	-	-	-	-	-	164 19	-
Wellesley, .	-	-	-	339 26	-	-	-	-	-	-	2	110	7,050 00	13 36	-
Weymouth, .	-	6,000 00	300 00	813 04	-	-	-	-	-	-	2	25	500 00	57 86	-
Wrentham, .	-	1,818 26	109 08	383 58	-	-	-	-	-	-	-	-	-	165 01	92 96
Totals, .	-	\$166,638 46	\$6,884 69	\$7,748 72	4	482	\$9,673 50	24	1,637	\$10,670 00	\$3,488 22	\$362 99			

* Parochial.

PLYMOUTH COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation — 1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Abington, .	3,699	2,080,926	15	652	402	757	1	87	452	635	570	.90	20
Bridgewater, .	3,827	2,194,847	18	499	301	650	2	106	343	515	469	.91	21
Brockton, .	20,783	15,117,528	75	3,748	2,089	4,301	—	443	2,479	3,141	3,039	.98	77
Carver, .	1,091	588,850	8	142	101	182	1	25	114	139	124	.89	8
Duxbury, .	1,924	1,157,606	10	293	189	360	4	40	202	280	246	.88	11
East Bridgewater, .	2,812	1,488,646	14	438	260	514	1	39	255	408	382	.94	15
Halifax, .	530	247,464	4	110	72	120	—	9	72	102	91	.89	4
Hanover, .	1,966	1,116,657	9	309	222	376	5	16	255	308	275	.89	10
Hanson, .	1,227	578,905	8	196	111	224	6	8	160	182	160	.88	8
Hingham, .	4,375	3,632,985	16	624	392	737	6	87	397	656	591	.90	21
Hull, .	451	2,197,600	2	87	58	90	—	3	59	72	65	.90	2
Kingston, .	1,570	1,703,215	8	240	142	294	1	37	179	257	233	.91	9
Lakeville, .	980	435,356	8	150	97	157	3	5	97	121	103	.85	8
Marion, .	965	822,750	7	177	101	172	—	15	97	153	138	.90	7
Marshfield, .	1,649	1,075,935	9	217	143	242	—	18	156	193	173	.90	9
Mattapoisett, .	1,215	1,496,905	7	166	97	182	—	16	96	170	138	.81	7
Middleborough, .	5,163	2,925,453	24	865	539	992	8	83	571	811	726	.90	27
Norwell, .	1,589	873,187	10	249	165	257	7	6	164	205	205	.91	10
Pembroke, .	1,313	632,895	8	207	134	230	3	16	136	180	156	.87	8
Plymouth, .	7,239	5,373,325	34	1,341	856	1,452	—	111	856	1,278	1,140	.90	37
Plympton, .	600	289,839	4	84	75	86	—	3	75	75	65	.87	4
Rochester, .	1,021	469,370	7	167	105	190	2	14	105	150	131	.87	7
Rockland, .	4,785	2,449,481	20	818	488	1,057	3	128	564	932	846	.91	22

Scituate, . . .	2,350	1,837,275	13	490	324	443	2	56	285	380	348	.92	15
Wareham, . . .	3,254	1,576,440	17	602	321	640	12	50	367	510	463	.91	19
West Bridgewater, . . .	1,707	969,589	10	249	178	293	7	14	213	228	187	.82	10
Whitman, . . .	3,595	2,870,968	14	663	384	790	11	85	434	658	603	.92	16
Totals, . . .	81,680	\$56,203,997	379	13,783	8,346	15,788	85	1,520	9,163	12,760	11,667	.91	412

SUFFOLK COUNTY.

Boston, . . .	390,393	\$764,452,548	557	72,590	45,915	65,782	-	5,693	40,875	60,224	54,134	.90	1,340
Chelsea, . . .	25,709	19,781,480	78	4,832	2,824	5,048	-	533	1,373	3,943	3,501	.89	94
Revere, . . .	3,637	4,670,615	17	877	583	920	5	60	570	727	651	.90	19
Winthrop, . . .	1,370	3,040,120	7	285	200	352	1	20	201	286	244	.85	7
Totals, . . .	421,109	\$791,944,763	659	78,584	49,522	72,102	6	6,306	43,019	65,180	58,530	.90	1,460

BOARD OF EDUCATION.

PLYMOUTH COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'ge wages per month of male teachers in Public Schools.	A'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.	
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.		
														Months.		Days.
Abington,	2	23	9	8	\$60 00	\$41 93	150	10	—	1	3	54	Taxation,	10	\$600 00	
Bridgewater,	6	21	15	15	77 30	35 38	163-5	8-10	—	1	3	100	Taxation,	9-5	1,100 00	
Brookton,	8	74	34	29	114 33	48 34	750	10	—	1	5	283	Taxation,	10	1,900 00	
Carver,	2	8	1	—	33 60	28 94	56	7	—	—	—	—	—	—	—	
Duxbury,	2	10	2	1	67 50	32 55	92-3	9-4	—	1	2	68	Part tax,	10	1,000 00	
East Bridgewater,	2	19	4	4	102 50	35 76	127	9	—	1	2	71	Taxation,	10	1,000 00	
Halifax,	—	7	5	3	—	28 66	33	8-5	—	—	—	—	—	—	—	
Hanover,	1	12	8	8	87 00	30 07	88-15	9-17	—	1	2	74	Taxation,	10	870 00	
Hanson,	—	12	4	4	—	31 00	64	8	—	—	—	—	—	—	—	
Hingham,	8	15	10	8	86 66	39 50	160	10	—	1	3	105	Taxation,	10	1,600 00	
Hull,	1	1	—	—	75 00	44 00	18	9	—	—	—	—	—	—	—	
Kingston,	2	14	9	6	108 11	40 16	66-15	8-5	—	1	2	53	Taxation,	9	1,000 00	
Lakeville,	—	11	6	4	—	28 45	61	7-12	1	—	—	—	—	—	—	
Marion,	4	7	1	—	44 00	32 00	56	8	—	—	—	—	—	—	—	
Marshfield,	—	10	3	3	—	31 19	74-5	8-5	—	—	—	—	—	—	—	
Mattapoisett,	1	6	3	3	66 62	29 67	52	8-13	—	1	1	43	Part tax,	10	666 25	
Middleborough,	2	32	16	12	103 51	34 53	209-5	9	—	1	3	139	Taxation,	10	1,200 00	
Norwell,	1	11	6	4	84 20	31 11	91-15	9-3	—	1	1	32	Taxation,	6-5	800 00	
Pembroke,	—	12	5	4	—	28 76	72	9	—	—	—	—	—	—	—	
Plymouth,	5	37	8	7	97 50	39 16	330	10	—	1	5	144	Taxation,	10	1,400 00	
Plympton,	—	4	2	2	—	31 00	35-15	9	—	—	—	—	—	—	—	
Rochester,	—	14	5	5	—	32 00	59-10	8-10	—	—	—	—	—	—	—	
Rockland,	7	24	12	9	71 20	35 77	185	9-5	—	1	3	121	Taxation,	10	1,260 00	

	1	17	6	4	118 92	28 00	117-5	9	-	1	2	59	Taxation, Taxation,	9-5 9-10	1,100 00 1,000 00
Seitate, . . .	3	20	4	1	78 00	31 75	137-10	8	-	1	2	65	-	-	-
Wareham, . . .	-	13	4	3	-	37 87	87-5	8-7	-	-	-	-	-	-	-
West Bridgewater, Whitman, . . .	1	16	6	3	125 00	41 00	133-10	9-10	-	1	3	115	Taxation, Taxation,	10	1,250 00
Totals, . . .	59	450	188	151	£84 32	£36 91	3,470-18	8-16	1	16	42	1,526	-	153-5	£17,746 25

SUFFOLK COUNTY — CONTINUED.

Boston,	52	1,295	875	875	\$254 26	\$72 95	5,120	10-1	-	11	107	2,724	Taxation, 10	{	\$22,680 00
Chelsea,	7	87	-	-	173 00	53 30	780	10	-	1	8	276	Taxation, 10	-	5,760 00
Revere,	2	17	9	8	76 00	47 75	170	10	-	-	-	-	-	-	6,636 00
Winthrop,	2	6	4	3	74 72	41 03	58-10	9-15	-	1	1	47	Taxation, 9-15	-	2,300 00
Totals,	63	1,405	888	886	\$233 87	\$71 29	6,128-10	9-19	-	13	116	3,047	-	-	\$38,276 00

PLYMOUTH COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for schools, including wages of teachers, board, fuel, and school-rooms, for the school-year 1888-89.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for transportation of pupils.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Abington,	\$8,971 83	—	\$1,200 00	\$31 00	\$1,375 18	\$212 75	—	\$1,150 00	\$432 79	\$13,373 55
Bridgewater,	9,350 00	\$91 92	420 00	—	1,201 00	—	—	—	500 00	11,762 92
Brookton,	49,332 82	—	2,080 00	44 50	2,905 25	12 50	—	1,266 30	2,709 10	58,350 47
Carver,	1,200 00	62 50	—	20 00	109 54	—	—	—	97 42	1,489 46
Duxbury,	3,000 00	159 10	—	35 00	385 18	—	—	—	309 39	3,888 67
E. Bridgewater,	5,600 00	343 20	—	—	405 97	—	—	197 90	306 26	6,853 33
Halifax,	800 00	—	50 00	—	113 54	—	—	489 97	—	1,453 51
Hanover,	3,450 00	185 00	—	22 40	400 00	—	—	—	350 00	4,407 40
Hanson,	2,125 00	144 00	—	20 00	315 68	—	—	23 80	68 48	2,696 96
Hingham,	12,717 75	—	1,000 00	—	1,000 94	—	—	—	615 29	15,333 98
Hull,	1,200 00	45 00	—	15 00	110 33	49 00	\$2,700 00	843 00	22 49	4,984 82
Kingston,	3,250 00	259 25	—	—	400 00	200 00	630 00	250 00	250 00	5,239 25
Lakeville,	2,295 85	90 00	—	20 00	125 00	7 00	—	25 00	100 00	2,662 85
Marion,	2,000 00	107 00	—	3 00	180 00	—	2,360 00	—	176 00	4,826 00
Marshfield,	2,000 00	164 00	—	20 00	380 00	35 00	—	—	456 24	4,826 00
Mattapoisett,	2,125 00	122 00	—	—	200 00	—	—	—	400 00	2,847 00
Middleboro',	11,500 00	—	1,200 00	15 00	718 28	967 84	—	1,138 15	517 57	16,056 84
Norwell,	3,000 00	177 70	—	25 00	348 58	—	—	—	253 84	3,805 12
Pembroke,	1,896 80	119 95	—	19 50	170 91	—	—	—	257 89	2,465 05
Plymouth,	20,265 92	—	1,353 25	126 36	1,505 36	168 37	—	1,000 00	1,143 93	25,563 19
Plympton,	800 00	85 00	—	10 00	125 20	51 00	—	—	20 00	1,091 20
Rochester,	1,600 00	115 00	—	10 00	253 72	—	—	—	365 00	2,343 72
Rockland,	10,400 00	384 00	—	50 00	879 13	—	—	370 00	580 00	12,663 13

Saiteate, .	5,000 00	126 82	—	24 00	354 33	—	—	—	228 92	5,734 07
Wareham, .	6,200 00	276 00	—	—	700 00	—	—	—	400 00	7,576 00
W. Bridgewater, .	3,500 00	23 00	125 00	—	150 00	—	—	—	300 00	4,098 00
Whitman, .	7,000 00	469 00	—	—	773 26	—	—	—	1,883 12	10,125 38
Totals, .	\$180,780 97	\$3,549 44	\$7,428 25	\$510 76	\$15,586 38	\$1,703 46	\$5,690 00	\$6,754 12	\$12,743 73	\$234,747 11

SUFFOLK COUNTY — CONTINUED.

Boston, .	\$1,459,990 76	\$53,957 00	\$4,200 00	\$3,000 00	\$74,717 33	—	\$121,328 95	—	\$251,736 17	\$1,968,930 21
Chelsea, .	65,780 67	—	2,400 00	120 00	5,880 57	—	—	\$32,016 30	4,419 00	110,616 54
Revere, .	12,340 65	—	500 00	20 00	956 11	—	10,587 88	563 85	811 14	25,779 63
Winthrop, .	3,000 00	120 00	—	16 00	437 70	—	222 68	136 20	327 96	4,260 54
Totals, .	\$1,541,112 08	\$54,077 00	\$7,100 00	\$3,156 00	\$81,991 71	—	\$132,139 51	\$32,716 35	\$257,294 27	\$2,109,586 92

PLYMOUTH COUNTY — CONCLUDED.

[illegible]

SCHOOL RETURNS.

Seituate, .	-	-	-	239 13	-	-	-	-	-	-	-	-	-	165 71	-
Wareham, .	-	-	-	404 59	-	-	-	-	-	-	-	-	-	169 58	-
W. Bridgewater, .	-	80,000 00	-	3,200 00	1	54	-	-	-	-	-	-	-	209 24	-
Whitman, .	-	-	-	517 03	-	-	-	-	1	15	250 00	-	-	171 36	-
Totals, .	-	\$160,717 00	\$7,390 44	\$5,054 72	4	191	\$1,007 00	15	745	\$13,010 50	\$4,816 94	\$242 00	-	-	-

SUFFOLK COUNTY — CONCLUDED.

Boston,	•	—	\$62,434 49	\$3,044 87	\$40,272 97	36	11,463	\$204,100 00	83	3,253	\$354,975 04	—	—
Chelsea,	•	—	—	—	—	—	—	—	2	50	600 00	—	—
Revere,	•	—	—	—	568 00	—	—	—	—	—	—	\$25 58	—
Winthrop,	•	—	—	—	310 40	—	—	—	—	—	—	157 87	—
Totals,	•	—	\$62,434 49	\$3,044 87	\$41,151 37	36	11,463	\$204,100 00	85	3,303	\$355,575 04	\$183 45	\$25 58

WORCESTER COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation — 1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 16 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 5 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Ashburnham,	2,058	\$992,400	12	316	213	402	2	17	278	332	299	.90	12
Athol,	4,758	2,773,692	23	785	486	922	2	82	562	732	672	.92	24
Auburn,	1,268	482,919	7	242	185	285	3	17	185	191	157	.82	7
Barre,	2,093	1,385,075	12	326	208	398	4	54	230	326	294	.90	13
Berlin,	899	488,777	5	149	99	171	1	24	97	126	116	.92	5
Blackstone,	5,436	2,453,235	22	1,066	643	1,196	8	35	699	899	806	.90	25
Bolton,	876	477,607	7	131	66	148	1	14	66	112	103	.92	7
Boylston,	834	523,573	6	150	92	164	1	16	94	117	105	.90	6
Brookfield,	3,013	1,256,017	15	507	343	666	—	48	359	477	414	.87	16
Charlton,	1,823	914,470	13	285	180	304	4	32	171	219	196	.90	13
Clinton,	8,945	5,531,811	32	1,960	1,211	1,890	—	60	1,360	1,471	1,330	.91	36
Dana,	695	281,869	5	115	66	119	2	8	68	103	91	.88	5
Douglas,	2,205	1,029,043	13	398	263	341	10	39	263	376	294	.78	14
Dudley,	2,742	964,305	12	568	373	454	7	24	223	309	282	.91	12
Fitchburg,	15,375	13,694,890	62	3,591	2,052	3,336	13	270	1,865	2,558	2,283	.89	71
Gardner,	7,283	3,889,546	26	1,328	822	1,211	3	92	749	1,137	977	.86	28
Grafton,	4,498	2,292,305	23	901	661	1,119	11	63	647	855	755	.88	27
Hardwick,	3,145	1,375,800	14	436	266	498	—	41	269	392	340	.87	14
Harvard,	1,184	933,445	9	134	69	177	—	22	94	129	117	.91	9
Holden,	2,471	1,071,437	16	498	282	578	12	69	296	478	414	.87	17
Hopedale,	926	882,408	6	213	142	234	—	29	167	202	189	.94	7
Hubbardston,	1,303	699,965	10	178	144	227	2	16	140	184	166	.90	10
Lancaster,	2,050	2,663,325	11	321	210	332	3	45	197	251	229	.91	14
Leicester,	2,923	1,894,830	14	559	341	631	6	56	371	492	438	.90	17
Leominster,	5,297	4,069,045	26	995	1,020	1,328	—	132	901	1,032	971	.94	28
Lunenburg,	1,071	678,732	8	160	106	177	2	18	106	140	126	.90	8

SCHOOL RETURNS.

lxvii

	945	547,158	7	125	93	171	2	22	101	148	142	96	8
Mendon,	9,343	4,876,704	32	1,405	835	1,551	1	180	870	1,262	1,179	.93	36
Millford,	4,555	1,954,847	17	904	586	864	4	74	506	767	637	.86	16
Millbury,	558	439,890	6	81	48	115	—	16	64	88	83	.94	6
New Braintree,	1,853	1,251,545	8	284	216	339	—	32	214	272	245	.90	8
Northborough,	3,786	2,089,191	16	822	537	896	6	55	560	670	611	.91	18
Northbridge,	4,201	1,883,607	19	743	623	776	4	64	688	550	478	.87	16
North Brookfield,	749	351,358	5	125	101	142	—	17	101	113	101	.89	5
Oakham,	2,355	1,331,018	12	407	244	562	10	25	346	386	343	.89	14
Oxford,	561	277,069	4	84	56	100	1	10	58	71	66	.93	4
Petersham,	1,032	593,216	10	170	119	202	2	33	119	155	138	.89	10
Phillipston,	530	275,880	5	86	56	106	—	7	56	83	79	.95	5
Princeton,	1,038	799,715	9	169	108	181	3	14	112	137	125	.91	9
Royalston,	1,153	635,305	10	186	124	204	1	20	124	155	141	.91	10
Rutland,	963	489,503	11	173	111	235	—	40	162	184	166	.90	11
Shrewsbury,	1,450	1,022,240	9	253	185	289	2	60	185	268	245	.91	10
Southborough,	2,100	1,429,443	10	368	233	380	4	40	226	287	277	.97	10
Southbridge,	6,500	3,178,050	23	1,538	932	1,178	5	62	711	822	742	.90	28
Spencer,	8,247	4,011,090	34	1,902	1,580	2,165	—	46	1,580	1,686	1,545	.92	43
Sterling,	1,331	884,077	11	201	133	237	2	42	133	177	163	.92	11
Sturbridge,	1,980	975,107	16	396	208	468	9	17	262	322	287	.89	16
Sutton,	3,101	1,303,731	16	604	405	566	2	34	340	374	298	.80	16
Templeton,	2,627	1,104,559	15	520	301	631	2	8	—	432	397	.92	16
Upton,	2,265	883,209	11	328	207	371	5	38	207	312	287	.92	12
Uxbridge,	2,948	2,032,725	18	648	375	544	6	43	363	473	426	.90	18
Warren,	4,032	2,384,244	24	892	544	1,059	1	51	645	831	773	.93	25
Webster,	6,290	2,371,100	13	1,210	803	590	14	44	403	449	399	.89	14
Westborough,	4,880	2,583,774	20	827	610	962	—	73	603	699	651	.93	24
West Boylston,	2,927	1,164,850	13	526	307	608	6	51	338	461	424	.92	14
West Brookfield,	1,747	783,112	8	245	172	315	7	18	155	230	199	.87	8
Westminster,	1,556	756,256	13	277	224	340	4	34	193	255	220	.86	13
Winchendon,	3,872	1,961,296	20	699	427	846	6	95	556	709	658	.93	25
Worcester,	68,389	64,502,636	247	14,326	11,034	14,048	—	1,124	8,423	11,255	10,032	.89	301
Totals,	244,965	\$164,828,026	1,101	47,836	33,080	49,349	206	3,812	29,861	38,723	34,741	.90	1,255

WORCESTER COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.	
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	LENGTH.		
														Months.		Days.
Ashburnham,	1	14	3	1	\$77 77	\$32 50	94-5	7-17	-	1	1	72	Taxation,	9-15	\$700 00	
Athol, .	1	30	6	5	108 12	36 29	184-5	8-2	-	1	1	66	Taxation,	9-5	1,000 00	
Auburn, .	1	10	1	1	-	32 00	52-5	7-9	-	1	2	-	-	-	-	
Barre, .	2	17	2	1	62 15	33 26	97	8-2	-	1	2	65	Taxation,	9	866 66	
Berlin, .	1	5	1	1	-	32 80	40	8	-	1	-	-	-	-	-	
Blackstone, .	3	27	4	1	70 37	31 00	189-2	8-2	-	1	2	60	Taxation,	9	1,000 00	
Bolton, .	2	9	8	6	60 00	30 00	54-15	8-12	-	1	1	26	Not by tax,	9-15	600 00	
Boylston, .	1	10	2	1	-	34 66	46-10	7-15.	-	1	-	-	-	-	-	
Brookfield, .	1	26	1	1	105 26	34 87	121-10	8-2	-	1	2	55	Taxation,	9-10	1,000 00	
Charlton, .	2	15	-	-	33 00	31 00	95	7	-	1	-	-	-	-	-	
Clinton, .	1	36	13	7	160 00	45 60	310	9-14	2	1	3	126	Taxation,	10	1,600 00	
Dana, .	-	7	3	1	-	26 00	36	7-4	-	-	-	-	-	-	-	
Douglas, .	2	16	2	2	80 00	30 15	122-4	8-14	-	1	1	36	Taxation,	10	800 00	
Dudley, .	4	11	2	2	69 33	34 18	103-5	8-12	-	1	1	29	Taxation,	10	1,000 00	
Fitchburg, .	8	75	28	23	125 00	42 00	606	9-5	1	1	7	339	Taxation,	9-15	2,100 00	
Gardner, .	1	27	7	6	120 00	41 00	255-10	9-16	-	1	3	93	Taxation,	10	1,200 00	
Grafton, .	4	30	5	4	77 09	35 61	195-10	8-5	-	1	2	98	Taxation,	9	1,300 00	
Hardwick, .	1	21	1	1	50 00	33 36	109-12	7	1	1	1	21	Taxation,	6	300 00	
Harvard, .	3	14	3	1	32 00	32 00	72	8	-	-	-	-	-	-	-	
Holden, .	2	18	6	3	86 00	32 00	118-15	7-8	-	1	2	54	Taxation,	9-5	1,000 00	
Hopedale, .	-	11	8	7	-	50 43	50	9-5	-	1	2	42	Taxation,	10	750 00	
Hubbardston, .	1	13	1	-	29 00	27 66	71-15	7-3	-	-	-	-	-	-	-	
Lancaster, .	2	14	3	1	80 52	33 64	96-5	8-14	-	1	3	68	Taxation,	9-10	1,163 18	
Leicester, .	6	20	8	1	79 94	39 63	126-10	9	-	1	4	64	Part tax,	9-15	1,700 00	
Leominster, .	2	26	4	2	102 00	40 00	254	9-14	-	1	3	99	Taxation,	10	1,500 00	
Lunenburg, .	-	10	6	2	-	31 00	60	7-10	-	1	-	-	-	-	-	

SCHOOL RETURNS.

lxix

	3	9	4	1	46 00	28 66	51	7-5	-	1	2	34	Taxation,	6	360 00
Mendon, . . .	1	42	19	11	170 00	41 85	277-16	8-14	-	1	4	190	Taxation,	10	1,700 00
Milford, . . .	5	21	10	5	60 00	37 28	144	9	-	1	2	64	Taxation,	10	1,400 00
Millbury, . . .	1	13	6	6	32 00	32 00	45	7-10	-	1	1	-	-	-	-
New Braintree, . . .	1	10	6	4	108 10	37 60	72-10	9-1	-	1	1	29	Taxation,	9-5	1,000 00
Northborough, . . .	1	22	15	14	120 00	41 04	162	9-11	-	1	1	28	Taxation,	10	1,200 00
North Brookfield, . . .	2	21	1	1	140 00	35 95	142-10	7-10	-	1	2	67	Taxation,	10	1,360 00
Oakham, . . .	2	8	2	1	-	28 13	37-15	7-10	-	1	2	-	-	-	-
Oxford, . . .	2	14	2	-	80 00	28 67	97	8-1	-	1	2	36	Taxation,	10	1,000 00
Paxton, . . .	1	4	1	-	48 00	26 50	26-10	6-12	-	1	-	-	-	-	-
Petersham, . . .	1	12	3	1	-	25 00	67-5	6-7	-	1	1	49	Taxation,	7-10	375 00
Phillipston, . . .	2	10	3	3	-	24 00	33-15	6-15	-	1	-	-	-	-	-
Princeton, . . .	2	12	-	2	32 00	30 00	58-10	6-10	-	1	-	-	-	-	-
Royalston, . . .	2	13	6	3	33 50	29 46	70	7	1	-	-	-	-	-	-
Rutland, . . .	3	12	5	3	34 50	28 00	61-15	5-12	2	1	1	39	Taxation,	5	250 00
Shrewsbury, . . .	3	13	3	1	79 62	34 35	77	8-5	-	1	2	59	Taxation,	9	716 64
Southborough, . . .	3	11	7	4	79 33	40 67	90-10	9-10	-	1	2	65	Taxation,	9-10	1,100 00
Southbridge, . . .	1	37	7	3	118 87	36 95	203-16	8-19	-	1	2	64	Taxation,	9-16	1,165 00
Spencer, . . .	5	40	14	9	82 00	36 00	306	9	-	1	3	128	Taxation,	9	1,150 00
Sterling, . . .	3	14	5	3	64 66	32 59	85-15	7-16	1	1	1	45	Taxation,	9-5	700 00
Sturbridge, . . .	1	23	1	1	28 00	27 96	119-11	7-9	2	1	-	-	-	-	-
Sutton, . . .	1	19	3	3	77 77	30 00	117-15	7-7	2	1	1	40	Taxation,	9	700 00
Templeton, . . .	2	14	-	-	86 00	32 14	113	7-10	-	2	3	95	Taxation,	9	800 00
Upton, . . .	4	14	7	6	66 00	36 18	88-5	8	-	1	2	81	Taxation,	9	750 00
Uxbridge, . . .	2	20	10	2	115 78	36 05	151-4	8-4	-	1	2	33	Taxation,	9-5	1,100 00
Warren, . . .	3	30	7	2	66 66	36 69	193-10	8-1	1	1	2	56	Taxation,	9	900 00
Webster, . . .	3	13	4	4	63 33	38 60	118	9-1	-	1	2	65	Taxation,	10	1,200 00
Westborough, . . .	3	21	11	8	122 00	44 00	250	9-3	-	1	3	69	Taxation,	10	1,500 00
West Boylston, . . .	1	16	3	-	102 56	37 00	109-10	9	-	1	2	40	Taxation,	9-15	1,000 00
West Brookfield, . . .	1	10	4	4	32 00	36 00	70	9	-	-	-	-	-	-	-
Westminster, . . .	-	15	2	1	-	29 43	93-6	7-4	2	1	1	29	Taxation,	9	444 00
Winchendon, . . .	5	22	1	1	113 75	36 00	158-5	7-18	-	1	6	88	Not by tax,	9-10	1,800 00
Worcester, . . .	25	276	194	191	143 65	53 55	2,433	10	-	1	21	1,167	Taxation,	10	3,000 00
Totals, . . .	139	1,343	492	373	\$90 96	\$39 48	9,687-11	8-2	15	44	113	4,073	-	397-6	\$47,200 48

WORCESTER COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for schools, including wages of teachers, board, fuel, care of rooms, for the school-year 1888-89.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for transportation of pupils.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Ashburnham,	\$3,500 00	\$136 21	—	\$17 00	\$952 55	\$35 00	—	—	\$287 59	\$4,928 35
Athol,	8,598 53	300 00	—	—	1,633 28	—	—	\$228 70	418 46	11,178 97
Auburn,	2,000 00	60 00	—	—	300 00	—	—	100 00	175 00	2,635 00
Barre,	4,583 00	184 22	—	20 00	372 74	84 50	—	275 76	69 72	5,589 94
Berlin,	1,100 00	65 00	—	17 60	110 00	—	—	26 00	28 74	1,347 31
Blackstone,	7,800 00	—	\$300 00	75 00	1,503 55	—	\$3,983 02	—	713 74	14,375 31
Bolton,	1,500 00	92 00	—	10 00	238 48	—	—	—	280 00	2,120 48
Boylston,	1,600 00	131 73	—	10 00	152 40	—	—	—	279 84	2,173 97
Brookfield,	5,900 00	160 00	—	41 85	325 04	47 65	—	702 50	194 25	7,371 29
Charlton,	3,000 00	168 93	—	4 00	175 89	—	—	—	87 11	3,435 93
Clinton,	20,480 00	630 00	1,600 00	50 00	3,234 59	—	—	—	1,330 83	27,325 42
Dana,	700 00	43 00	—	15 00	179 00	15 00	—	35 00	27 00	1,014 00
Douglas,	4,300 00	99 99	—	5 00	786 73	—	—	39 41	—	5,231 13
Dudley,	4,000 00	162 00	—	35 00	350 00	—	—	—	350 00	4,897 00
Fitchburg,	47,019 73	—	2,166 67	50 00	7,530 06	—	8,341 09	500 00	622 30	66,229 85
Gardner,	13,172 96	375 00	—	46 00	1,827 04	—	—	—	1,000 00	16,421 00
Grafton,	9,950 00	858 57	—	21 00	1,134 09	—	—	111 18	775 99	12,850 83
Hardwick,	4,000 00	—	150 00	24 00	519 47	27 00	3,139 37	—	352 14	8,211 98
Harvard,	2,500 00	150 15	—	16 00	184 15	—	—	407 76	26 33	3,284 39
Holden,	5,640 24	205 00	—	15 00	591 78	105 00	—	370 00	372 45	7,299 47
Hopedale,	3,899 70	100 00	—	21 00	829 69	165 00	—	69 49	275 62	5,360 50
Hubbardston,	2,072 00	135 00	—	25 00	200 00	—	—	—	100 00	2,532 00
Lancaster,	5,500 00	250 00	—	20 00	503 48	292 50	—	—	266 30	6,832 28
Leicester,	6,000 00	325 25	—	25 00	741 99	—	—	—	226 95	7,319 19
Leominster,	13,200 00	—	1,500 00	100 00	1,880 26	500 00	2,998 25	1,300 00	1,880 26	23,358 77
Lumenburg,	1,700 00	86 00	—	12 00	635 51	—	—	—	23 79	2,457 30

SCHOOL RETURNS.

lxxi

Mendon,	1,500 00	10 00	75 00	20 00	200 00	140 00	—	100 00	30 00	2,075 00
Milford,	17,955 89	25 00	1,500 00	25 00	1,636 60	—	—	273 50	841 07	22,257 06
Milbury,	9,000 00	375 00	—	20 00	500 00	—	—	4,561 26	500 00	14,956 26
New Braintree,	1,589 00	95 00	—	16 00	162 00	—	—	205 00	20 00	2,087 00
Northborough,	3,500 00	190 00	—	20 00	511 51	224 50	—	—	48 10	4,494 11
Northbridge,	8,800 00	—	350 00	50 00	921 40	—	—	—	1,903 28	12,024 68
N. Brookfield,	9,000 00	255 00	—	50 00	653 33	30 00	—	—	559 36	10,547 69
Oakham,	850 00	99 50	—	5 00	173 35	—	—	76 58	—	1,204 43
Oxford,	5,000 00	240 00	—	10 00	406 57	144 00	—	290 73	258 08	6,349 38
Paxton,	551 00	75 00	—	17 00	70 16	84 00	—	—	102 84	900 00
Petersham,	1,600 00	146 75	—	15 00	481 15	81 70	—	—	—	2,394 25
Phillipston,	700 00	45 00	—	8 00	94 57	80 00	—	90 00	35 00	1,052 57
Princeton,	2,000 00	131 00	—	3 50	77 50	—	—	25 00	—	2,237 00
Royalston,	1,600 00	130 00	—	10 00	157 41	5 00	—	—	51 00	1,953 41
Rutland,	1,800 00	100 00	—	15 00	107 16	—	—	120 00	347 21	2,489 37
Shrewsbury,	4,000 00	205 00	—	18 00	478 37	—	—	165 83	272 36	5,139 56
Southborough,	4,600 00	175 00	—	—	737 43	—	—	429 73	361 11	6,303 27
Southbridge,	12,100 00	—	1,400 00	26 50	1,700 92	—	—	3,981 10	380 88	19,589 40
Spencer,	23,250 00	—	1,100 00	44 00	1,287 10	421 50	—	1,787 92	—	27,890 52
Sterling,	3,496 30	167 75	—	15 00	357 93	95 00	—	—	135 81	4,267 79
Sturbridge,	3,200 00	244 00	—	13 80	305 57	110 60	—	489 02	137 84	4,500 83
Sutton,	4,950 00	150 00	—	5 00	—	—	—	—	202 57	5,307 57
Templeton,	4,700 00	216 31	—	34 15	674 34	275 00	—	—	206 21	6,106 01
Upton,	4,599 01	192 34	—	25 00	303 09	60 51	—	—	162 84	5,342 79
Uxbridge,	7,500 00	—	500 00	—	762 27	153 37	1,500 00	220 76	116 94	10,753 34
Warren,	11,000 00	—	400 00	30 00	1,060 46	44 55	4,896 15	50 00	463 95	17,945 11
Webster,	7,900 00	225 00	—	55 00	967 50	—	—	—	150 00	9,297 50
Westborough,	12,175 00	—	600 00	—	879 89	180 00	—	—	475 00	14,309 89
West Boylston,	5,000 00	150 00	—	23 50	640 93	—	—	—	184 04	5,998 47
W. Brookfield,	3,000 00	117 00	—	18 00	394 52	114 00	—	—	125 35	3,768 87
Westminster,	3,208 06	138 00	—	15 00	472 19	10 00	—	1,459 17	159 58	5,462 00
Winchendon,	5,616 29	311 45	—	54 65	425 76	—	—	93 65	518 89	7,020 69
Worcester,	214,442 37	1,100 00	3,500 00	165 04	21,908 82	—	4,800 40	15,110 65	9,600 77	270,628 05
Totals,	\$583,899 08	\$10,027 15	\$15,141 67	\$1,502 59	\$66,401 57	\$3,525 38	\$29,658 28	\$33,765 35	\$28,514 49	\$772,435 56

WORCESTER COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.					Town's share of school fund payable Jan. 25, 1889.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.		
Ashburnham,		\$120,000 00	\$6,800 00	\$180 58	1	187	\$2,050 00			\$211 43	-
Athol,		-	-	311 81	1					175 08	-
Auburn,		-	-	-						308 38	\$100 00
Barre,		-	-	-						159 90	35 00
Berlin,		2,020 00	120 00	94 10						303 97	-
Blackstone,		-	-	350 70						184 53	46 00
Bolton,		12,000 00	618 00	-				1	18	303 81	-
Boylston,		-	-	-						205 27	-
Brookfield,		-	-	278 00						165 43	-
Charlton,		3,000 00	150 00	267 54						208 98	-
Clinton,		-	-	-					224	61 13	-
Dana,		-	-	72 70						303 65	25 00
Douglas,		941 33	56 48	-						163 30	-
Dudley,		8,000 00	480 00	171 07	1					217 11	-
Fitchburg,		-	-	-				10	800	-	-
Gardner,		1,000 00	50 00	-				1	100	41 49	-
Grafton,		1,000 00	65 00	-						180 82	-
Hardwick,		200 00	12 00	218 60						164 95	-
Harvard,		-	-	-				1	27	204 67	14 50
Holden,	\$290 00	3,366 66	202 00	335 49						165 62	-
Hopedale,	-	-	-	-						205 78	-
Hubbardston,	-	1,200 00	72 00	-						206 63	-
Lancaster,	50 00	-	-	-	1	25	1,907 00			160 47	40 00
Leicester,	-	51,000 00	3,060 00	345 47	1	300				167 36	-
Leominster,	-	13,000 00	520 00	-						30 15	-
Lunenburg,	-	-	-	269 00						204 98	-

RECAPITULATION.

COUNTIES.	Population—State Census, 1885.	Valuation — 1888.	No. of Public Schools.	No. of persons in town May 1, 1888, between 5 and 15 years of age.	No. of persons in town May 1, 1888, between 15 and 18 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 5 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.
Barnstable,	29,845	\$17,574,222	160	4,826	3,130	5,404	17	666	3,246	4,607	4,123	.89
Berkshire,	73,828	41,732,690	382	15,298	10,570	15,991	129	1,406	10,301	12,309	11,144	.91
Bristol,	158,498	121,855,171	579	30,966	18,778	29,242	74	1,934	17,964	22,561	20,240	.90
Dukes,	4,135	3,384,166	23	585	360	629	3	84	350	538	457	.85
Essex,	263,727	205,749,203	913	48,467	29,420	44,710	63	3,535	25,723	38,162	34,281	.90
Franklin,	37,449	19,330,992	264	6,991	4,504	7,583	54	727	4,413	6,120	5,548	.91
Hampden,	116,764	86,309,532	453	22,350	14,275	20,119	109	1,569	12,115	15,340	13,947	.91
Hampshire,	48,472	28,360,236	292	8,871	5,826	9,459	93	816	5,640	7,548	6,869	.91
Middlesex,	357,311	332,097,256	1,327	69,085	42,385	71,061	169	6,461	42,030	58,187	53,123	.91
Nantucket,	3,142	2,960,538	12	560	470	400	—	20	375	353	347	.98
Norfolk,	102,142	120,473,309	479	19,583	12,498	21,329	122	1,902	11,988	17,149	15,834	.92
Plymouth,	81,680	56,203,997	379	13,783	8,346	15,788	85	1,520	9,163	12,760	11,667	.91
Suffolk,	421,109	791,944,763	659	78,584	49,522	72,102	6	6,306	43,019	65,180	58,530	.90
Worcester,	244,965	164,828,026	1,101	47,836	33,080	49,349	206	3,812	29,861	38,723	34,741	.90
Totals,	1,943,067	\$1,992,804,101	7,023	367,785	233,364	363,166	1,130	30,758	216,188	299,537	270,851	.90

SCHOOL RETURNS.

lxxv

RECAPITULATION — CONTINUED.

COUNTIES.	No. of teachers required by the Public Schools.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.			Salary of Principal.
											No. of High Schools.	No. of teachers.	No. of pupils.	
Barnstable,	168	44	191	66	54	\$71 03	\$34 52	1,370-10	8-9	1	10	15	516	\$9,348 00
Berkshire,	438	64	479	74	37	62 58	30 29	3,275-12	8-1	7	12	24	719	13,040 00
Bristol, .	693	63	763	146	102	93 87	42 69	5,368-11	8-15	2	11	45	1,671	15,400 00
Dukes, .	24	7	24	9	7	49 85	29 42	183	7-17	—	1	1	41	540 00
Essex, .	1,060	89	1,084	358	262	118 51	44 14	8,730-9	9-5	1	27	96	2,973	36,423 25
Franklin, .	286	20	352	52	27	54 99	28 01	1,992-17	7-3	5	9	17	488	5,888 00
Hampden,	512	52	568	188	124	102 31	41 92	4,076-8	8-2	3	9	42	1,157	14,500 00
Hampshire,	312	47	381	44	26	54 13	30 10	2,249-10	7-15	4	12	26	737	9,499 66
Middlesex,	1,624	161	1,661	687	492	138 59	50 24	12,417-9	8-16	11	47	161	5,294	62,917 50
Nantucket,	13	2	13	3	3	100 00	28 25	116-6	9-8	—	1	2	47	1,000 00
Norfolk, .	526	91	508	178	145	113 49	44 47	4,556-18	9-7	4	24	56	1,850	30,430 00
Plymouth,	412	59	450	188	151	84 32	36 91	3,470-18	8-16	1	16	42	1,526	17,746 25
Suffolk, .	1,460	63	1,465	888	886	233 87	71 29	6,128-10	9-19	—	13	116	3,047	38,276 00
Worcester,	1,225	139	1,343	492	373	90 96	39 48	9,687-11	8-2	15	44	113	4,073	47,200 48
Totals,	8,753	901	9,222	3,373	2,689	\$108 88	\$45 93	63,624-9	8-11	54	236	756	24,139	\$302,209 14

RECAPITULATION — CONTINUED.

COUNTIES.	Amount raised by taxes for schools, including board, fuel, care of dress and school-rooms, for the school-year 1888-89.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, books, stationery, etc.	Amount expended for transportation of pupils.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Barnstable,	\$62,358 86	\$2,390 30	\$1,690 00	\$264 00	\$4,987 06	\$636 77	\$2,025 76	\$1,496 14	\$4,832 94	\$80,681 83
Berkshire,	146,863 38	2,822 24	5,200 00	527 15	14,145 16	487 55	40,724 39	7,843 90	12,015 07	230,628 84
Bristol,	384,446 97	3,228 00	10,109 59	1,009 93	34,476 70	3,062 43	44,466 41	7,313 60	32,545 70	520,659 33
Dukes,	6,209 00	292 00	—	76 50	1,074 36	—	—	—	424 43	8,076 29
Essex,	596,777 14	9,232 55	9,350 00	2,130 84	48,404 80	916 54	37,802 54	24,516 69	42,585 06	771,716 16
Franklin,	67,931 85	3,103 67	60 00	261 45	8,250 29	1,856 88	4,856 74	1,853 70	4,332 30	92,506 88
Hampden,	274,518 76	3,890 36	7,642 50	448 89	23,403 30	1,537 72	52,594 48	16,759 80	13,037 52	393,833 33
Hampshire,	93,651 02	2,371 67	1,730 82	229 38	9,416 09	1,064 19	2,800 00	6,264 95	6,778 95	124,507 07
Middlesex,	1,104,584 80	11,667 41	23,863 81	2,363 67	83,919 52	4,680 97	192,243 43	49,522 74	62,634 07	1,535,480 42
Nantucket,	4,940 29	100 00	—	25 00	240 45	—	—	—	112 12	5,417 86
Norfolk,	318,551 09	5,820 74	12,008 26	793 71	34,858 17	2,646 49	69,507 00	7,448 94	18,712 83	470,337 23
Plymouth,	180,780 97	3,549 44	7,428 25	510 76	15,586 38	1,703 46	5,690 00	6,754 12	12,743 73	234,747 11
Suffolk,	1,541,112 08	54,077 00	7,100 00	3,156 00	81,991 71	—	132,139 51	32,716 35	257,294 27	2,109,586 92
Worcester,	583,899 08	10,927 15	15,141 67	1,502 59	66,401 57	3,525 38	29,658 28	33,765 35	28,514 49	772,435 56
Totals,	\$5,366,605 29	\$112,772 53	\$101,324 90	\$13,299 87	\$427,155 56	\$22,118 38	\$614,508 54	\$196,256 28	\$496,563 48	\$7,350,604 83

RECAPITULATION — CONCLUDED.

COUNTIES.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1889.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Barnstable,	—	\$39,000 00	\$2,020 00	\$1,974 43	1	11	\$175 00	5	39	\$1,372 50	\$3,205 94	\$119 75
Berkshire,	—	17,825 23	1,082 28	1,602 90	2	—	—	15	1,021	34,963 00	7,427 72	182 69
Bristol,	—	211,000 00	13,477 26	5,192 24	3	290	13,861 00	31	4,667	15,189 00	2,893 43	189 29
Dukes,	\$19 35	—	—	323 30	1	16	50 00	—	—	—	1,468 00	26 00
Essex,	40 00	474,517 94	19,692 37	9,167 74	5	683	35,715 00	52	6,472	30,865 00	4,204 92	96 00
Franklin,	31 00	67,638 58	3,516 58	1,366 02	6	542	39,628 36	5	70	2,445 00	6,771 82	152 10
Hampden,	1,132 44	178,659 65	9,462 24	4,439 80	3	485	13,750 00	25	5,266	20,795 00	4,461 24	172 86
Hampshire,	17 00	391,443 06	18,537 93	3,389 34	5	243	5,381 06	17	736	11,955 25	5,629 82	150 94
Middlesex,	249 00	157,630 13	9,474 35	7,292 45	12	845	59,307 00	74	8,076	93,448 50	7,407 08	562 48
Nantucket,	—	—	—	—	1	60	480 00	1	15	150 00	167 84	50 00
Norfolk,	—	166,638 46	6,884 69	7,748 72	4	482	9,673 50	24	1,637	10,670 00	3,488 22	362 99
Plymouth,	—	160,717 00	7,390 44	5,054 72	4	191	1,007 00	15	745	13,010 50	4,816 94	242 00
Suffolk,	—	62,434 49	3,044 87	41,151 37	36	11,463	204,100 00	85	3,303	355,575 04	183 45	25 58
Worcester,	390 00	473,689 61	19,191 68	6,608 66	6	732	8,937 00	47	5,573	14,680 00	10,797 62	1,437 69
Totals,	\$1,878 79	\$2,401,194 15	\$113,774 69	\$95,311 19	89	16,043	\$392,084 92	396	37,620	\$605,118 79	\$62,924 04	\$3,770 37

EVENING SCHOOLS.

CITIES AND TOWNS.	No. of Schools.	ATTENDANCE.			TIME.	No. of Teachers.	Expense.
		Males.	Females.	Average.			
Boston,	20	4,360	*	2,943	105	153	\$54,520 57
Brockton,	1	89	25	69	49	4	550 79
Brookline,	1	63	27	38	68	5	400 00
Cambridge,	4	433	150	250	22	26	2,251 57
Canton,	1	76	32	52	47	3	299 37
Chelsea,	2	375	*	150	52	10	807 50
Chicopee,	3	280	305	446	40	28	1,885 83
Clinton,	1	147	96	98	48	9	500 00
Danvers,	1	24	*	12	35	1	116 00
Dedham,	1	51	3	21	40	3	300 00
Fall River,	49	1,864	866	1,207	62	106	11,836 91
Fitchburg,	4	340	235	217	74	25	2,415 18
Frammingham,	1	97	50	61	80	6	934 00
Haverhill,	10	169	150	186	60	10	1,200 00
Hinsdale,	2	32	32	20	24	2	70 00
Holyoke,	5	711	600	733	40	59	3,659 75
Hyde Park,	2	115	29	24	89	3	501 13
Lawrence,	20	849	*	581	55	37	1,809 75
Lowell,	21	1,845	1,469	1,437	82	86	10,412 50
Lynn,	7	202	103	246	42	22	1,708 28
Malden,	2	137	107	122	60	8	1,561 84
Maynard,	1	78	20	73	40	3	335 94
Milford,	1	54	*	35	74	1	304 00
Natick,	1	118	133	149	28	11	508 00
New Bedford,	3	951	556	824	36	39	7,510 84
Newburyport,	2	50	42	49	29	6	265 00
Newton,	2	88	99	57	30	8	620 30
North Adams,	7	198	68	168	40	13	799 22
Northampton,	5	236	35	12	34	5	378 00
North Andover,	1	30	19	44	30	3	69 18
Norwood,	1	40	30	35	25	3	-
Pittsfield,	1	113	36	38	64	4	621 00
Plymouth,	1	40	20	30	60	2	261 00
Quincy,	5	-	-	57	53	-	1,542 75
Salem,	3	468	157	205	60	22	2,525 00
Somerville,	3	258	*	128	83	8	775 00
Southbridge,	6	127	168	233	34	8	497 58
Spencer,	2	86	20	100	40	10	463 50
Springfield,	3	336	86	104	30	14	2,184 48
Sutton,	2	105	60	150	75	3	245 37
Taunton,	5	168	115	84	37	10	1,303 00
Waltham,	3	149	110	105	36	9	1,500 00
Warren,	2	200	89	230	38	7	196 55
Warwick,	1	13	21	31	50	1	109 00
Watertown,	1	58	40	39	35	5	303 33
Webster,	6	200	100	225	44	10	400 00
Westfield,	1	75	20	40	41	6	385 00
West Springfield,	1	21	16	24	44	2	113 60
Winchester,	1	25	20	22	34	7	227 68
Woburn,	1	56	11	44	50	4	230 10
Worcester,	10	608	54	350	87	46	5,526 66
Totals,	240	17,208	6,424	12,598	2,535	876	\$127,942 05

* With males.

SCHOOL RETURNS.

lxxix

RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE YEAR ENDING JULY 31, 1889.

STATE INSTITUTIONS.	No. of Schools in the Institution.	No. of different Schools of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending School.	No. over 15 years of age attending School.	No. between 5 and 15 years of age remaining in the Institution July 31, 1889.	No. of Teachers during the Year.		Wages of Teachers per Month.		Length of each School in Months.
							Males.	Females.	Males.	Females.	
State Industrial School at Lancaster, .	4	164	78.6	—	72	92	—	8	—	\$25 00*	12 months.
State Primary School at Monson, .	8	493	275	14	33	259	—	10	—	20 83	11 $\frac{3}{4}$ months.
Lyman School for Boys at Westborough,	6	287	168.1	—	18	106	—	7	—	27 27*	11 months.

* With board.

GRADUATED TABLES—FIRST SERIES.

The following Table shows the sums appropriated by the several cities and towns in the State for the education of each child between five and fifteen years of age. The income of the surplus revenue and of other funds held in a similar way, when appropriated to schools, is added to the sum raised by taxes; and these sums constitute the amount reckoned as appropriations. The income of such school funds as were given and are held on the express condition that their income shall be appropriated to schools is not included. Such an appropriation of their income, being necessary to retaining the funds, is no evidence of the liberality of those holding the trust. But if a town appropriates the income of any fund to its public schools, which may be so appropriated or not, at the option of the voters, or when the town has a legal right to use such income in defraying its ordinary expenses, then such an appropriation is as really a contribution to common schools as an equal sum raised by taxes. On this account the surplus revenue and sometimes other funds are to be distinguished from local school funds as generally held. The income of the one *may* be appropriated to schools, or not, at the pleasure of the town; the income of the other *must* be appropriated to schools by the condition of the donation. Funds of the latter kind are usually donations made to furnish means of education in addition to those provided by a reasonable taxation. Committees are expected, in their annual returns, to make this distinction in relation to school funds.

Voluntary contributions are not included in the amount which is divided in order to ascertain the sum appropriated to each child. In many towns such contributions, however liberal, are not permanent, and cannot be relied upon as a stated provision. They are often raised and applied to favor particular schools, or classes of scholars, and not to benefit equally all that attend the public schools. Besides, the value of board and fuel gratuitously furnished is determined by the mere estimate of individuals, and is therefore uncertain; while the amount raised by taxes, being in money, has a fixed and definite value, and is a matter of record. Still the contributions voluntarily made are exhibited in a separate column of the Table, as necessary to a complete statement of the provision made by the towns for the education of their children.

The Table exhibits the rank of each city or town in the State, in respect to its liberality in the appropriation of money to its schools, as compared with other cities and towns for the year 1888-89, also its rank in a similar scale for 1887-88. It presents the sum appropriated to each child between five and fifteen.

GRADUATED TABLES — (FOR THE STATE) — FIRST SERIES.

Table showing the Comparative Amount of Money appropriated by the different Towns in the State for the Education of each Child in the Town, between the Ages of 5 and 15 Years.

For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
2	1	MAHANT.	\$29 80.3	\$4,082 99	—	\$4,082 99	137	—
3	2	Brookline,	28 03.3	52,339 43	—	52,339 43	1,867	—
4	3	Wellesley,	27 75.8	11,513 36	\$339 26	11,852 62	427	—
5	4	Newton,	26 29.4	104,772 69	2,690 40	107,463 09	4,087	—
6	5	Weston,	26 02.7	5,700 00	—	5,700 00	219	—
7	6	Milton,	25 11.3	15,820 89	—	15,820 89	630	—
8	7	Belmont,	23 19.2	7,375 00	—	7,375 00	318	—
9	8	Dover,	22 97	1,965 00	102 34	2,067 34	90	—
10	9	Longmeadow,	22 68.9	3,800 00	170 55	3,970 55	175	—
11	10	Lexington,	22 47.2	10,000 00	—	10,000 00	445	—
12	11	Dedham,	22 40.4	27,959 73	—	27,959 73	1,248	—
13	12	Cohasset,	22 09.3	7,341 10	281 08	7,622 18	345	—
14	13	Medford,	21 98.3	35,173 59	—	35,173 59	1,600	—
15	14	Boston,	20 66.8	1,459,990 76	40,272 97	1,500,263 73	72,590	—
16	15	Bourne,	20 54.4	5,000 00	259 23	5,259 23	256	—
17	16	New Braintree,	20 51.9	1,589 00	73 00	1,662 00	81	—
18	17	Hingham,	20 38.1	12,717 75	—	12,717 75	624	—
35	18	Norwood,	20 36	11,300 00	—	11,300 00	555	—

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contrib- uted for board and fuel.
For 1887-88.	For 1888-89.							
12	19	Waltham, .	\$20 20	\$55,812 95	—	\$55,812 95	2,763	—
23	20	Bridgewater, .	20 15.8	9,550 00	\$508 70	10,058 70	499	—
25	21	Winchester, .	19 91.5	16,011 37	—	16,011 37	804	—
22	22	Swampscott, .	19 75.4	6,854 81	—	6,854 81	347	—
15	23	Arlington, .	19 55.6	19,419 23	—	19,419 23	993	—
46	24	Falmouth, .	19 35.2	6,850 00	445 60	7,295 60	377	—
11	25	Concord, .	19 10.4	11,825 58	—	11,825 58	619	—
14	26	Groton, .	18 84.1	5,200 00	—	5,200 00	276	—
34	27	Harvard, .	18 65.7	2,500 00	—	2,500 00	134	—
29	28	Sandwich, .	18 42.7	6,000 00	357 48	6,357 48	345	—
17	29	Hopedale, .	18 30.8	3,899 70	—	3,899 70	213	—
26	30	Needham, .	18 20	8,900 00	—	8,900 00	489	—
39	31	Gosnold, .	18 18.2	200 00	—	200 00	11	—
16	32	Bedford, .	18 03.3	2,200 00	—	2,200 00	122	—
36	33	Walpole, .	17 99.9	7,320 00	347 54	7,667 54	426	—
20	34	Watertown, .	17 56	21,826 83	—	21,826 83	1,243	—
42	35	Randolph, .	17 45.9	9,450 00	1,549 40	10,999 40	630	—
85	36	Medfield, .	17 45.7	3,491 32	—	3,491 32	200	—
33	37	Sterling, .	17 39.5	3,496 30	—	3,496 30	201	—
53	38	Ashby, .	17 32.9	1,800 00	123 51	1,923 51	111	—
58	39	Melrose, .	17 21.1	21,737 65	—	21,737 65	1,263	—
51	40	Lancaster, .	17 13.4	5,500 00	—	5,500 00	321	\$50 00
84	41	Littleton, .	16 99.5	2,500 00	151 15	2,651 15	156	—
38	42	Cambridge, .	16 89.5	198,130 04	—	198,130 04	11,727	119 00
59	43	Reading, .	16 81	9,800 00	—	9,800 00	583	—
52	44	Springfield, .	16 77.3	107,612 45	—	107,612 45	6,416	—

SCHOOL RETURNS.

lxxxiii

41	Somerville, .	.	.	16 56.3	98,698 78	-	98,698 78	5,959	-
51	Malden, .	.	.	16 55.4	53,967 40	-	53,967 40	3,260	-
31	Granby, .	.	.	16 31.3	1,800 00	106 47	1,906 47	123	-
73	Fairhaven, .	.	.	16 26.2	6,339 79	360 00	6,699 79	412	-
60	Stockbridge, .	.	.	16 12.9	5,500 00	-	5,500 00	341	-
68	Orleans, .	.	.	15 94.5	2,200 00	64 22	2,264 22	142	-
43	Acton, .	.	.	15 93.4	4,100 00	361 40	4,461 40	280	-
52	Stoneham, .	.	.	15 85.5	14,000 00	-	14,000 00	883	-
40	Shrewsbury, .	.	.	15 81	4,000 00	-	4,000 00	253	-
45	Weymouth, .	.	.	15 77.1	26,612 23	813 04	27,425 27	1,739	-
24	Tisbury, .	.	.	15 66.7	2,425 00	207 00	2,632 00	168	-
47	Haverhill, .	.	.	15 60.7	62,757 19	172 00	62,929 19	4,032	-
55	Hyde Park, .	.	.	15 60	27,503 57	-	27,503 57	1,763	-
67	Salem, .	.	.	15 56.2	78,190 39	3,292 46	81,482 85	5,236	-
117	Lincoln, .	.	.	15 46.9	2,500 00	52 33	2,552 33	165	-
222	Lakeville, .	.	.	15 30.6	2,295 85	-	2,295 85	150	-
63	Frammingham, .	.	.	15 23.3	23,500 00	1,176 78	24,676 78	1,620	-
64	Essex, .	.	.	15 22.8	3,000 00	-	3,000 00	197	-
37	Wellfleet, .	.	.	15 22.6	3,958 86	-	3,958 86	260	-
78	Amherst, .	.	.	15 19	8,595 24	321 17	8,916 41	587	-
69	Holbrook, .	.	.	15 17.2	6,600 00	-	6,600 00	435	-
30	New Bedford, .	.	.	15 15.3	93,081 68	987 69	94,069 37	6,208	-
61	Plymouth, .	.	.	15 11.3	20,265 92	-	20,265 92	1,341	-
174	Shelburne, .	.	.	15 06.9	3,000 00	59 00	3,059 00	203	-
79	Worcester, .	.	.	14 96.9	214,442 37	-	214,442 37	14,326	-
95	Westborough, .	.	.	14 72.2	12,175 00	-	12,175 00	827	-
122	Revere, .	.	.	14 71.9	12,340 65	568 00	12,908 65	877	-
131	Great Barrington, .	.	.	14 64.6	12,000 00	741 84	12,741 84	870	-
72	Stow, .	.	.	14 64.5	2,000 00	138 18	2,138 18	146	-
66	Barnstable, .	.	.	14 63.2	9,000 00	378 91	9,378 91	641	-
114	Foxborough, .	.	.	14 61	6,250 00	397 66	6,647 66	455	-
91	Canton, .	.	.	14 53.3	10,619 64	701 51	11,321 15	779	-

5 00

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contrib- uted for board and fuel.
71	77	North Andover,	\$14 50.9	\$10,200 00	—	\$10,200 00	703	—
94	78	Manchester,	14 50.2	3,451 59	—	3,451 59	238	—
57	79	Raynham,	14 47.5	3,000 00	\$242 41	3,242 41	224	—
135	80	Braintree,	14 44.7	8,400 00	1,106 20	9,506 20	658	—
92	81	Sherborn,	14 42.6	2,625 00	115 99	2,740 99	190	—
149	82	Kingston,	14 36.5	3,250 00	197 51	3,447 51	240	—
170	83	Holliston,	14 30.6	6,595 09	—	6,595 09	461	—
90	84	Wrentham,	14 28.1	6,000 00	383 58	6,383 58	447	—
93	85	Gloucester,	14 18.6	51,806 14	—	51,806 14	3,652	—
163	86	Attleborough,	14 11.8	14,750 00	850 00	15,600 00	1,105	—
76	87	Lowell,	14 11	173,501 94	—	173,501 94	12,296	—
134	88	Wayland,	14 06.5	4,800 00	179 07	4,979 07	354	—
56	89	Barre,	14 05.8	4,583 00	—	4,583 00	326	—
219	90	West Bridgewater,	14 05.6	3,500 00	—	3,500 00	249	—
87	91	Upton,	14 02.1	4,599 01	—	4,599 01	328	—
48	92	Millis,	14 00.9	1,737 13	—	1,737 13	124	—
112	93	Lynn,	13 86.8	111,224 60	—	111,224 60	8,020	—
32	94	Hull,	13 79.3	1,200 00	—	1,200 00	87	—
88	95	Barnardston,	13 77	2,050 00	56 80	2,106 80	153	—
50	96	Abington,	13 76	8,971 83	—	8,971 83	652	—
86	97	Peabody,	13 75.7	29,000 00	826 10	29,826 10	2,168	—
104	98	East Bridgewater,	13 73.4	5,600 00	415 41	6,015 41	438	—
84	99	Natick,	13 66.6	23,000 00	—	23,000 00	1,683	—
111	100	Chelsea,	13 61.4	65,780 67	—	65,780 67	4,832	—
83	101	Sharon,	13 60.8	2,800 00	153 00	2,953 00	217	—
169	102	Enfield,	13 58.5	2,000 00	78 44	2,078 44	153	—

SCHOOL RETURNS.

LXXXV

150	103	Greenfield,	13	54.9	12,750	00	-	12,750	00	941	-
173	104	Swansea,	13	54.9	2,723	37	-	2,723	37	201	-
162	105	Easton,	13	50.6	10,068	30	520	17	10,588	47	784
89	106	Townsend,	13	41	3,500	00	-	-	3,500	00	261
101	107	Brockett,	13	40.6	49,332	82	911	66	50,244	48	3,748
75	108	Everett,	13	35.7	18,900	00	-	-	18,900	00	1,415
138	109	Rehoboth,	13	35.4	3,341	00	264	67	3,605	67	270
127	110	Southborough,	13	32.2	4,600	00	302	54	4,902	54	368
82	111	Middleborough,	13	29.5	11,500	00	-	-	11,500	00	865
103	112	Leominster,	13	26.6	13,200	00	-	-	13,200	00	995
102	113	North Attleborough,	13	23	17,000	00	-	-	17,000	00	1,285
195	114	Mendon,	13	20.2	1,500	00	150	19	1,650	19	125
115	115	Taunton,	13	16.6	55,652	34	-	-	55,652	34	4,227
121	116	Fitchburg,	13	09.4	47,019	73	-	-	47,019	73	3,591
77	117	South Hadley,	13	08.2	8,550	00	306	22	8,856	22	677
158	118	Norwell,	13	07.9	3,000	00	256	80	3,256	80	249
166	119	Northborough,	13	06.5	3,500	00	210	58	3,710	58	284
182	120	Milford,	13	05.3	17,955	89	383	01	18,338	90	1,405
44	121	Tyngsborough,	13	01.4	1,000	00	67	12	1,067	12	82
147	122	Westfield,	13	00.8	22,400	00	-	-	22,400	00	1,722
96	123	North Reading,	13	00.2	1,800	00	85	33	1,885	33	145
144	124	Yarmouth,	12	92.5	3,000	00	166	62	3,166	62	245
207	125	Montgomery,	12	91	500	00	55	12	555	12	43
126	126	Medway,	12	90.4	5,500	00	294	00	5,794	00	449
10	127	Boxborough,	12	90.3	800	00	-	-	800	00	62
100	128	Merrimac,	12	85.7	6,400	00	170	00	6,570	00	511
313	129	Erving,	12	85.1	1,200	00	534	92	1,734	92	135
191	130	Eastham,	12	82.9	900	00	62	19	962	19	75
118	131	Mattapoisett,	12	80.1	2,125	00	-	-	2,125	00	166
113	132	Rockland,	12	71.4	10,400	00	-	-	10,400	00	818
141	133	Princeton,	12	67.2	2,000	00	141	60	2,141	60	169
175	134	North Brookfield,	12	64.5	9,000	00	395	37	9,395	37	743

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
256	135	Westford, .	\$12 59.8	\$4,800 00	—	\$4,800 00	381	—
108	136	Chelmsford, .	12 57.6	5,000 00	\$357 58	5,357 58	426	\$130 00
293	137	Greenwich, .	12 56.5	715 18	38 72	753 90	60	—
116	138	Bradford, .	12 55.1	6,900 00	254 00	7,154 00	570	—
105	139	Saugus, .	12 53.2	7,080 39	—	7,080 39	565	—
107	140	Wakefield, .	12 52.4	17,000 00	220 00	17,220 00	1,375	—
197	141	West Stockbridge, .	12 45.4	4,450 00	46 00	4,496 00	361	—
198	142	Somerset, .	12 37.5	4,528 08	211 45	4,739 53	383	—
274	143	Leyden, .	12 33.3	900 00	86 66	986 66	80	31 00
177	144	Warren, .	12 33.2	11,000 00	—	11,000 00	892	—
151	145	Lunenburg, .	12 30.6	1,700 00	269 00	1,969 00	160	—
70	146	Oxford, .	12 28.5	5,000 00	—	5,000 00	407	50 00
129	147	West Newbury, .	12 28.5	3,362 73	150 90	3,513 63	286	40 00
119	148	West Brookfield, .	12 24.5	3,000 00	—	3,000 00	245	—
181	149	Spencer, .	12 22.4	23,250 00	—	23,250 00	1,902	—
150	150	Brookfield, .	12 18.5	5,900 00	278 00	6,178 00	507	—
109	151	Sunderland, .	12 17.4	1,400 00	—	1,400 00	115	—
156	152	Northampton, .	12 15.7	28,200 00	987 96	29,187 96	2,401	—
196	153	Pepperell, .	12 12.1	5,600 00	—	5,600 00	462	—
132	154	Acushnet, .	12 07.3	1,700 00	460 99	2,160 99	179	—
183	155	Hanover, .	12 02.4	3,450 00	265 48	3,715 48	309	—
74	156	West Springfield, .	12 01.7	10,557 48	414 41	10,971 89	913	164 14
154	157	Holden, .	11 99.9	5,640 24	335 49	5,975 73	498	290 00
125	158	Danvers, .	11 90.3	13,450 00	—	13,450 00	1,130	—
226	159	Gill, .	11 86.4	1,400 00	—	1,400 00	118	—
137	160	Andover, .	11 81.3	11,600 00	—	11,600 00	982	—

178	161	Marion,	.	.	.	11	80.8	2,000 00	90 00	2,090 00	177
225	162	Maynard,	.	.	.	11	77.1	6,191 51	-	6,191 51	526
180	163	Dunstable,	.	.	.	11	76.5	800 00	-	800 00	68
199	164	Hudson,	.	.	.	11	74.5	8,800 00	220 30	9,020 30	768
146	165	Granville,	.	.	.	11	73.5	2,300 00	-	2,300 00	196
190	166	Woburn,	.	.	.	11	73.4	31,600 00	-	31,600 00	2,693
136	167	Brewster,	.	.	.	11	69.6	2,000 00	-	2,000 00	171
159	168	Sudbury,	.	.	.	11	69.3	2,000 00	174 84	2,174 84	186
140	169	Orange,	.	.	.	11	68.4	7,700 00	-	7,700 00	659
153	170	Harwich,	.	.	.	11	68.2	5,000 00	-	5,000 00	428
167	171	Ashburnham,	.	.	.	11	64.7	3,500 00	180 58	3,680 58	316
212	172	Hubbardston,	.	.	.	11	64	2,072 00	-	2,072 00	178
288	173	Hanson,	.	.	.	11	63.2	2,125 00	154 79	2,279 79	196
65	174	Carlisle,	.	.	.	11	62.8	1,000 00	-	1,000 00	86
97	175	Winthrop,	.	.	.	11	61.5	3,000 00	310 40	3,310 40	285
217	176	Boxford,	.	.	.	11	60.7	1,400 00	143 71	1,543 71	133
184	177	Westminster,	.	.	.	11	58.1	3,208 06	-	3,208 06	277
155	178	Uxbridge,	.	.	.	11	57.4	7,500 00	-	7,500 00	648
139	179	Quincy,	.	.	.	11	56.4	38,113 86	-	38,113 86	3,296
192	180	Wilmington,	.	.	.	11	54.1	2,000 00	146 64	2,146 64	186
187	181	Marblehead,	.	.	.	11	49.4	16,925 60	743 70	16,769 30	1,459
130	182	Charlton,	.	.	.	11	46.5	3,000 00	267 54	3,267 54	285
123	183	Bolton,	.	.	.	11	45	1,500 00	-	1,500 00	131
143	184	Ashland,	.	.	.	11	41.6	5,000 00	-	5,000 00	438
133	185	Beverly,	.	.	.	11	39.1	19,287 38	840 10	20,127 48	1,767
157	186	Methuen,	.	.	.	11	38.3	9,000 00	493 40	9,493 40	834
229	187	Wenham,	.	.	.	11	36.9	1,500 00	148 50	1,648 50	145
204	188	Athol,	.	.	.	11	35.1	8,598 53	311 81	8,910 34	785
160	189	Leicester,	.	.	.	11	35.1	6,000 00	345 47	6,345 47	559
244	190	Whitman,	.	.	.	11	33.8	7,000 00	517 03	7,517 03	663
205	191	Fall River,	.	.	.	11	32.2	147,512 41	-	147,512 41	13,029
227	192	Easthampton,	.	.	.	11	31.3	8,050 00	265 30	8,315 30	735

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
280	193	Blandford,	\$11 25.3	\$1,800 00	\$90 46	\$1,890 46	168	—
110	194	Dighton,	11 23.5	3,200 00	204 20	3,404 20	303	—
148	195	Ipswich,	11 20.9	6,700 00	474 00	7,174 00	640	—
164	196	Duxbury,	11 20.2	3,000 00	282 18	3,282 18	293	—
243	197	Southwick,	11 20	1,500 00	202 40	1,702 40	152	—
203	198	Cheshire,	11 15.2	3,000 00	—	3,000 00	269	—
231	199	Lenox,	11 13.6	4,900 00	—	4,900 00	440	—
168	200	Truro,	11 08.4	1,700 00	40 24	1,740 24	157	—
106	201	Northbridge,	11 07.2	8,800 00	301 46	9,101 46	822	—
223	202	Grafton,	11 04.3	9,950 00	—	9,950 00	901	—
221	203	Wareham,	10 97.1	6,200 00	404 59	6,604 59	602	—
186	204	Dalton,	10 92.8	5,300 00	—	5,300 00	485	—
99	205	Tewksbury,	10 90.9	3,000 00	—	3,000 00	275	—
267	206	Holyoke,	10 86.1	68,317 33	1,215 00	69,532 33	6,402	\$506 75
251	207	Douglas,	10 80.4	4,300 00	—	4,300 00	398	—
201	208	Plympton,	10 79.2	800 00	106 56	906 56	84	—
216	209	Marlborough,	10 73	25,720 15	—	25,720 15	2,397	—
242	210	Scituate,	10 69.2	5,000 00	239 13	5,239 13	490	—
189	211	Petersham,	10 68.2	1,600 00	215 86	1,815 86	170	—
220	212	Ayer,	10 67.8	4,500 00	187 81	4,687 81	439	—
176	213	Hamilton,	10 67.5	1,200 00	145 10	1,345 10	126	—
271	214	Boylston,	10 66.7	1,600 00	—	1,600 00	150	—
206	215	Monson,	10 52.4	6,500 00	877 61	7,377 61	701	—
193	216	Pittsfield,	10 51.9	33,628 54	—	33,628 54	3,197	—
230	217	Burlington,	10 50.9	1,000 00	114 00	1,114 00	106	—
179	218	Shirley,	10 48.5	2,000 00	117 88	2,117 88	202	—

SCHOOL RETURNS.

lxxxix

185	Clinton,	10 44.9	20,480 00	-	20,480 00	1,960
263	Conway,	10 44.8	2,800 00	-	2,800 00	268
128	Marshfield,	10 43.8	2,000 00	26.5 15	2,265 15	217
255	Sandisfield,	10 42.7	1,800 00	45 50	1,845 50	177
165	Hopkinton,	10 41.4	7,000 00	477 14	7,477 14	718
172	Dennis,	10 41.3	5,000 00	123 31	5,123 31	492
224	Rutland,	10 40.5	1,800 00	-	1,800 00	173
208	Topsfield,	10 38.3	1,500 00	150 90	1,650 90	139
253	Ludlow,	10 33.5	3,500 00	179 23	3,679 23	356
194	Bellingham,	10 33.2	2,165 00	108 12	2,273 12	220
287	Edgartown,	10 33.1	1,700 00	56 30	1,756 30	170
301	Hampden,	10 32.5	1,325 00	110 24	1,435 24	139
248	Southampton,	10 29.9	1,450 00	105 15	1,555 15	151
275	Franklin,	10 29.5	8,500 00	1,012 76	9,512 76	924
241	Dartmouth,	10 29.3	5,000 00	249 68	5,249 68	510
238	Williamstown,	10 24.2	5,971 03	-	5,971 03	583
124	Peru,	10 22.7	450 00	-	450 00	44
232	Pembroke,	10 20.6	1,896 80	215 80	2,112 60	207
210	Rochester,	10 17.6	1,600 00	99 35	1,699 35	167
261	Freetown,	10 02.6	2,000 00	175 65	2,175 65	217
152	Georgetown,	10 00.9	4,500 00	154 20	4,654 20	465
237	Hawley,	10 00	900 00	-	900 00	90
250	Groveland,	9 97.4	3,900 00	-	3,900 00	391
234	Millbury,	9 95.6	9,000 00	-	9,000 00	904
228	Westport,	9 93.4	4,500 00	-	4,500 00	453
200	Gardner,	9 91.9	13,172 96	-	13,172 96	1,328
236	Warwick,	9 89.1	910 00	-	910 00	92
266	Provincetown,	9 87.7	8,000 00	-	8,000 00	810
306	Worthington,	9 86.1	1,000 00	203 00	1,203 00	122
235	Lawrence,	9 85.2	78,058 93	-	78,058 93	7,923
142	Mansfield,	9 76.1	4,500 00	-	4,500 00	461
269	Tolland,	9 68.4	500 00	52 00	552 00	57

461 55

BOARD OF EDUCATION.

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
214	251	Hardwick,	\$9 67.6	\$4,000 00	\$218 60	\$4,218 60	436	—
277	252	Chicopee,	9 66.6	21,506 50	—	21,506 50	2,225	—
260	253	Hadley,	9 61.5	3,000 00	—	3,000 00	312	—
202	254	Ashfield,	9 57	1,500 00	59 95	1,559 95	163	—
120	255	Wilbraham,	9 56.3	2,200 00	133 37	2,333 37	244	—
270	256	Middlefield,	9 56.2	800 00	79 72	879 72	92	—
289	257	Berkley,	9 55.3	1,350 00	140 32	1,490 32	156	—
283	258	Billerica,	9 54.7	4,000 00	—	4,000 00	419	—
290	259	Adams,	9 54.1	18,747 56	—	18,747 56	1,965	—
268	260	West Boylston,	9 50.6	5,000 00	—	5,000 00	526	—
211	261	Templeton,	9 42.9	4,700 00	203 26	4,903 26	520	—
254	262	Phillipston,	9 38.7	700 00	107 30	807 30	86	—
321	263	Sutton,	9 32.9	4,950 00	684 86	5,634 86	604	—
296	264	Carver,	9 32.8	1,200 00	124 58	1,324 58	142	—
259	265	Norfolk,	9 32.2	1,500 00	159 23	1,659 23	178	—
286	266	Sheffield,	9 32.2	3,500 00	424 54	3,924 54	421	—
297	267	Rockport,	9 29.6	6,860 36	—	6,860 36	738	—
98	268	Lee,	9 28.1	6,200 00	—	6,200 00	668	—
247	269	Ware,	9 27.2	13,750 00	—	13,750 00	1,483	—
246	270	Belchertown,	9 25.5	4,000 00	285 10	4,285 10	463	—
282	271	Brimfield,	9 22	1,300 00	—	1,300 00	141	—
233	272	Chatham,	9 20.1	3,300 00	76 63	3,376 63	367	—
213	273	Dracont,	9 14	3,000 00	135 00	3,135 00	343	—
294	274	Royalston,	9 07.7	1,600 00	88 38	1,688 38	186	—
209	275	Cottage City,	9 06.7	1,300 00	60 00	1,360 00	150	—
252	276	Buckland,	8 99	2,500 00	62 10	2,562 10	285	—

SCHOOL RETURNS.

xci

315	277	Huntington,	.	.	.	8 97.4	2,100 00	—	2,100 00	234
224	278	Palmer,	.	.	.	8 91.3	11,300 00	447 57	11,747 57	1,318
257	279	Stoughton,	.	.	.	8 91.2	6,826 21	—	6,826 21	766
279	280	Norton,	.	.	.	8 89.1	2,500 00	291 78	2,791 78	314
314	281	Tyringham,	.	.	.	8 88.9	800 00	—	800 00	90
264	282	Northfield,	.	.	.	8 87.5	2,200 00	98 65	2,298 65	259
303	283	Wendell,	.	.	.	8 86.7	700 00	18 20	718 20	81
—	284	Avon,	.	.	.	8 86.1	2,002 52	—	2,002 52	226
285	285	Nantucket,	.	.	.	8 82.2	4,940 29	—	4,940 29	560
324	286	Russell,	.	.	.	8 81.3	1,000 00	92 81	1,092 81	124
273	287	Salisbury,	.	.	.	8 81.3	1,707 58	143 20	1,850 78	210
258	288	Agawan,	.	.	.	8 75.6	3,800 00	201 37	4,001 37	457
240	289	Rowley,	.	.	.	8 72.8	1,745 55	—	1,745 55	200
161	290	Middleton,	.	.	.	8 66.7	1,200 00	126 00	1,326 00	153
215	291	Deerfield,	.	.	.	8 64.3	5,000 00	168 80	5,168 80	598
311	292	Chilmark,	.	.	.	8 62.1	500 00	—	500 00	58
292	293	Montague,	.	.	.	8 53.2	11,961 85	—	11,961 85	1,402
305	294	Chester,	.	.	.	8 52.9	1,800 00	118 95	1,918 95	225
239	295	Cumington,	.	.	.	8 47.5	1,000 00	59 40	1,059 40	125
309	296	Otis,	.	.	.	8 41.1	900 00	—	900 00	107
308	297	Williamsburg,	.	.	.	8 29.3	3,000 00	168 06	3,168 06	382
145	298	Westhampton,	.	.	.	8 28.9	865 60	46 23	911 83	110
344	299	Auburn,	.	.	.	8 26.4	2,000 00	—	2,000 00	242
281	300	Hinsdale,	.	.	.	8 20.5	3,200 00	—	3,200 00	390
276	301	New Salem,	.	.	.	8 15.6	1,100 00	33 65	1,133 65	139
325	302	Hatfield,	.	.	.	8 11.6	1,850 00	89 75	1,939 75	239
298	303	North Adams,	.	.	.	8 11.5	23,679 30	—	23,679 30	2,918
262	304	Sturbridge,	.	.	.	8 08.1	3,200 00	—	3,200 00	396
307	305	Chesterfield,	.	.	.	8 04.7	900 00	57 64	957 64	119
278	306	Winchendon,	.	.	.	8 03.5	5,616 29	—	5,616 29	699
245	307	Berlin,	.	.	.	8 01.4	1,100 00	94 10	1,194 10	149
310	308	Newburyport,	.	.	.	7 97	19,430 91	—	19,430 91	2,438

\$14 35

17 00

Showing the Comparative Amount of Money appropriated by the different Towns in the State—Concluded.

	For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
312		309	Seekonk,	\$ 79.1	\$1,700 00	\$233 23	\$1,933 23	245	-
328		310	Southbridge,	7 86.7	12,100 00	-	12,100 00	1,538	-
300		311	Pelham,	7 79.9	700 00	72 15	772 15	99	-
347		312	Florida,	7 78	855 76	-	855 76	110	-
317		313	Oakham,	7 72.4	850 00	115 47	965 47	125	-
318		314	New Marlborough,	7 66	2,000 00	53 00	2,053 00	268	-
322		315	Blackstone,	7 64.6	7,800 00	350 70	8,150 70	1,066	-
302		316	Monterey,	7 64	650 00	75 80	725 80	95	-
320		317	Prescott,	7 60.4	500 00	77 94	577 94	76	-
335		318	Whately,	7 59.5	1,200 00	-	1,200 00	158	-
331		319	Mashpee,	7 50	450 00	-	450 00	60	-
319		320	Heath,	7 47.7	800 00	-	800 00	107	-
265		321	Holland,	7 45.2	200 00	23 56	223 56	30	-
218		322	Amesbury,	7 44.7	10,500 00	536 07	11,036 07	1,482	-
249		323	Lynnfield,	7 34.5	800 00	88 80	888 80	121	-
291		324	Dudley,	7 34.3	4,000 00	171 07	4,171 07	568	-
284		325	Washington,	7 29.2	700 00	-	700 00	96	-
332		326	Halifax,	7 27.3	800 00	-	800 00	110	-
327		327	Leverett,	7 26.8	860 00	55 76	915 76	126	-
323		328	Newbury,	7 16.7	2,100 00	114 60	2,214 60	309	-
330		329	Egremont,	7 14.3	1,000 00	-	1,000 00	140	-
337		330	Hancock,	7 07.9	800 00	-	800 00	113	-
326		331	Rowe,	6 95.4	700 00	30 18	730 18	105	-
272		332	Becket,	6 94	1,200 00	28 37	1,228 37	177	-
333		333	Plainfield,	6 85.2	425 00	40 92	465 92	68	-
339		334	Webster,	6 81.1	7,900 00	340 72	8,240 72	1,210	-

329	335	Dana, .	6 71.9	700 00	72 70	772 70	115	-
299	336	Lanesborough, .	6 71.6	1,800 00	-	1,800 00	268	-
295	337	Goshen, .	6 66.7	400 00	-	400 00	60	-
336	338	Colrain, .	6 61.6	2,400 00	61 05	2,461 05	372	-
304	339	Paxton, .	6 55.9	551 00	-	551 00	84	-
316	340	Richmond, .	6 38.7	1,334 00	45 57	1,379 57	216	-
334	341	Charlemont, .	6 28.3	1,200 00	-	1,200 00	191	-
340	342	Shutesbury, .	6 21.7	600 00	40 30	640 30	103	-
341	343	Savoy, .	6 12.2	600 00	-	600 00	98	-
345	344	Clarksburg, .	5 95.1	700 00	32 00	732 00	123	-
343	345	Wales, .	5 85.4	800 00	54 65	854 65	146	-
338	346	Windsor, .	5 50.5	700 00	32 15	732 15	133	-
346	347	Alford, .	4 65.1	298 19	50 67	348 86	75	-
342	348	Monroe, .	4 16.7	200 00	-	200 00	48	-
348	349	Mount Washington, .	3 98.3	100 00	7 55	107 55	27	-
350	350	New Ashford, .	3 60.3	99 00	19 91	118 91	33	-
349	351	Gay Head, .	3 00	84 00	-	84 00	28	-

GRADUATED TABLES — (COUNTY TABLES) — FIRST SERIES.

Table showing the Comparative Amount of Money appropriated by the different Towns in each of the Counties in the State for the Education of each Child in the Town between the Ages of 5 and 15 Years.

BARNSTABLE COUNTY.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
For 1887-88.	For 1888-89.							
1	1	BOURNE, .	\$20 54.4	\$5,000 00	\$259 23	\$5,259 23	256	-
4	2	Falmouth, .	19 35.2	6,850 00	445 60	7,295 60	377	-
2	3	Sandwich, .	18 42.7	6,000 00	357 48	6,357 48	345	-
6	4	Orleans, .	15 94.5	2,200 00	64 22	2,264 22	142	-
3	5	Wellfleet, .	15 22.6	3,958 86	-	3,958 86	260	-
5	6	Barnstable, .	14 63.2	9,000 00	378 91	9,378 91	641	-
8	7	Yarmouth, .	12 92.5	3,000 00	166 62	3,166 62	245	-
12	8	Eastham, .	12 82.9	900 00	62 19	962 19	75	-
7	9	Brewster, .	11 69.6	2,000 00	-	2,000 00	171	-
9	10	Harwich, .	11 68.2	5,000 00	-	5,000 00	428	-
10	11	Truro, .	11 08.4	1,700 00	40 24	1,740 24	157	-
11	12	Dennis, .	10 41.3	5,000 00	123 31	5,123 31	492	-
14	13	Provincetown, .	9 87.7	8,000 00	-	8,000 00	810	-
13	14	Chatham, .	9 20.1	3,300 00	76 63	3,376 63	367	-
15	15	Mashpee, .	7 50	450 00	-	450 00	60	-

BERKSHIRE COUNTY.

1	1	STOCKBRIDGE, .	\$16 12.9	\$5,500 00	-	\$5,500 84	341	-
4	2	Great Barrington, .	14 64.6	12,000 00	\$741 84	12,741 00	870	-

SCHOOL RETURNS.

XCV

7	West Stockbridge,	.	.	12 45.4	4,450 00	46 00	4,496 00	361	-
8	Cheshire, . . .	.	.	11 15.2	3,000 00	-	3,000 00	269	-
9	Lenox, . . .	.	.	11 13.6	4,900 00	-	4,900 00	440	-
5	Dalton, . . .	.	.	10 92.8	5,300 00	-	5,300 00	485	-
6	Pittsfield, . . .	.	.	10 51.9	33,628 54	-	33,628 54	3,197	-
11	Sandfield, . . .	.	.	10 42.7	1,800 00	45 50	1,845 50	1,177	-
10	Williamstown, . . .	.	.	10 24.2	5,971 03	-	5,971 03	583	-
3	Peru, . . .	.	.	10 22.7	450 00	-	450 00	44	-
16	Adams, . . .	.	.	9 54.1	18,747 56	-	18,747 56	1,965	-
15	Sheffield, . . .	.	.	9 32.2	3,500 00	424 54	3,924 54	421	-
12	Lee, . . .	.	.	9 28.1	6,200 00	-	6,200 00	668	-
21	Tyringham, . . .	.	.	8 88.9	800 00	-	800 00	90	-
20	Otis, . . .	.	.	8 41.1	900 00	-	900 00	107	-
13	Hinsdale, . . .	.	.	8 20.5	3,200 00	-	3,200 00	390	-
17	North Adams, . . .	.	.	8 11.5	23,679 30	-	23,679 30	2,918	-
30	Florida, . . .	.	.	7 78	855 76	-	855 76	110	-
23	New Marlborough, . . .	.	.	7 66	2,000 00	53 00	2,053 00	268	-
19	Monterey, . . .	.	.	7 64	650 00	75 80	725 80	95	-
14	Washington, . . .	.	.	7 29.2	700 00	-	700 00	96	-
24	Egremont, . . .	.	.	7 14.3	1,000 00	-	1,000 00	140	-
25	Hancock, . . .	.	.	7 07.9	800 00	-	800 00	113	-
12	Becket, . . .	.	.	6 94	1,200 00	28 37	1,228 37	177	-
25	Lanesborough, . . .	.	.	6 71.6	1,800 00	-	1,800 00	268	-
22	Richmond, . . .	.	.	6 38.7	1,334 00	45 57	1,379 57	216	-
27	Savoy, . . .	.	.	6 12.2	600 00	-	600 00	98	-
28	Clarksburg, . . .	.	.	5 95.1	700 00	32 00	732 00	123	-
26	Windsor, . . .	.	.	5 50.5	700 00	32 15	732 15	133	-
29	Alford, . . .	.	.	4 65.1	298 19	50 67	348 86	75	-
31	Mount Washington, . . .	.	.	3 98.3	100 00	7 55	107 55	27	-
32	New Ashford, . . .	.	.	3 60.3	99 00	19 91	118 91	33	-

BRISTOL COUNTY.

For 1884-85.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
3	1	FARMHAVEN.	\$16 26.2	\$6,339 79	\$360 00	\$6,699 79	412	-
1	2	New Bedford,	15 15.3	93,081 68	987 69	94,069 37	6,208	-
2	3	Raynham,	14 47.5	3,000 00	242 41	3,242 41	221	-
11	4	Attleborough,	14 11.8	14,750 00	850 00	15,600 00	1,105	-
12	5	Swansea,	13 54.9	2,723 37	-	2,723 37	201	-
10	6	Easton,	13 50.6	10,068 30	520 17	10,588 47	784	-
8	7	Rehoboth,	13 35.4	3,341 00	261 67	3,602 67	270	-
4	8	North Attleborough,	13 23	17,000 00	-	17,000 00	1,285	-
6	9	Taunton,	13 16.6	55,652 34	-	55,652 34	4,227	-
13	10	Somerset,	12 37.5	4,528 08	211 45	4,739 53	383	-
7	11	Acushnet,	12 07.3	1,700 00	460 99	2,160 99	179	-
14	12	Fall River,	11 32.2	147,512 41	-	147,512 41	13,029	-
5	13	Dighton,	11 23.5	3,200 00	204 20	3,404 20	303	-
16	14	Dartmouth,	10 29.3	5,000 00	249 68	5,249 68	510	-
17	15	Freetown,	10 02.6	2,000 00	175 65	2,175 65	217	-
15	16	Westport,	9 93.4	4,500 00	-	4,500 00	453	-
9	17	Mansfield,	9 76.1	4,500 00	-	4,500 00	461	-
19	18	Berkley,	9 55.3	1,350 00	140 32	1,490 32	156	-
18	19	Norton,	8 89.1	2,500 00	291 78	2,791 78	314	-
20	20	Seekonk,	7 89.1	1,700 00	233 23	1,933 23	245	-

DUKES COUNTY.

2	1	WOSWOLD,	\$18 18.2	\$200 00	-	\$200 00	11	-
1	2	Tisbury,	15 66.7	2,425 00	\$207 00	2,632 00	168	\$5 00

ESSEX COUNTY.

4	3	Edgartown, .	10	33.1	1,700 00	56 30	1,756 30	170	-
3	4	Cottage City, .	9	06.7	1,300 00	60 00	1,360 00	150	-
5	5	Chilmark, .	8	62.1	500 00	-	500 00	58	14 35
6	6	Gay Head, .	3	00	84 00	-	84 00	28	-

1	1	MIAIT, .	\$29	80.3	\$4,082 99	-	\$4,082 99	137	-
2	2	Swampscott, .	19	75.4	6,854 81	-	6,854 81	347	-
3	3	Haverhill, .	15	60.7	62,757 19	\$172 00	62,929 19	4,032	-
5	4	Salem, .	15	56.2	78,190 39	3,292 46	81,482 85	5,236	-
4	5	Essex, .	15	22.8	3,000 00	-	3,000 00	197	-
6	6	North Andover, .	14	50.9	10,200 00	-	10,200 00	703	-
9	7	Manchester, .	14	50.2	3,451 59	-	3,451 59	238	-
8	8	Gloucester, .	14	18.6	51,806 14	-	51,806 14	3,652	-
12	9	Lynn, .	13	86.8	111,224 60	-	111,224 60	8,020	-
7	10	Peabody, .	13	75.7	29,000 00	826 10	29,826 10	2,168	-
13	11	Merrimac, .	12	85.7	6,400 00	170 00	6,570 00	511	-
13	12	Bradford, .	12	55.1	6,900 00	254 00	7,154 00	570	-
11	13	Saugus, .	12	53.2	7,080 39	-	7,080 39	565	-
15	14	West Newbury, .	12	28.5	3,362 73	150 90	3,513 63	286	40 00
14	15	Danvers, .	11	90.3	13,450 00	-	13,450 00	1,130	-
17	16	Andover, .	11	81.3	11,600 00	-	11,600 00	982	-
24	17	Boxford, .	11	60.7	1,400 00	143 71	1,543 71	133	-
23	18	Marblehead, .	11	49.4	16,025 60	743 70	16,769 30	1,459	-
16	19	Beverly, .	11	39.1	19,287 38	840 10	20,127 48	1,767	-
20	20	Methuen, .	11	38.3	9,000 00	493 40	9,493 40	834	-
26	21	Wenham, .	11	36.9	1,500 00	148 50	1,648 50	145	-
18	22	Ipswich, .	11	20.9	6,700 00	474 00	7,174 00	640	-
22	23	Hamilton, .	10	67.5	1,200 00	145 10	1,345 10	126	-
31	24	Topsfield, .	10	38.3	1,500 00	150 90	1,650 90	159	-

ESSEX COUNTY — CONCLUDED.

	For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by town for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
19		25	Georgetown,	\$10 00.9	\$4,500 00	\$154 20	\$4,654 20	465	—
30		26	Groveland,	9 97.4	3,900 00	—	3,900 00	391	—
27		27	Lawrence,	9 85.2	78,058 93	—	78,058 93	7,923	—
33		28	Rockport,	9 29.6	6,860 36	—	6,860 36	738	—
32		29	Salisbury,	8 81.3	1,707 58	143 20	1,850 78	210	—
28		30	Rowley,	8 72.8	1,745 55	—	1,745 55	200	—
21		31	Middleton,	8 66.7	1,200 00	126 00	1,326 00	153	—
34		32	Newburyport,	7 97	19,430 91	—	19,430 91	2,438	—
25		33	Amesbury,	7 44.7	10,500 00	536 07	11,036 07	1,482	—
29		34	Lynnfield,	7 34.5	800 00	88 80	888 80	121	—
35		35	Newbury,	7 16.7	2,100 00	114 60	2,214 60	309	—

FRANKLIN COUNTY.

5	1	NIELBURNE,	\$15 06.9	\$3,000 00	\$59 00	\$3,059 00	203	—
1	2	Bernardston,	13 77	2,050 00	56 80	2,106 80	153	—
4	3	Greenfield,	13 54.9	12,750 00	—	12,750 00	941	—
18	4	Erving,	12 85.1	1,200 00	534 92	1,734 92	135	—
14	5	Leyden,	12 33.3	900 00	86 66	986 66	80	\$31 00
2	6	Sunderland,	12 17.4	1,400 00	—	1,400 00	115	—
8	7	Gill,	11 86.4	1,400 00	—	1,400 00	118	—
3	8	Orange,	11 68.4	7,700 00	—	7,700 00	659	—
12	9	Conway,	10 44.8	2,800 00	—	2,800 00	268	—
10	10	Hawley,	10 00	900 00	—	900 00	90	—

9	Warwick,	9 89.1	910 00	—	910 00	92
6	Ashfield,	9 57	1,500 00	59 95	1,559 95	163
11	Buckland,	8 99	2,500 00	62 10	2,562 10	285
13	Northfield,	8 87.5	2,200 00	98 65	2,298 65	259
17	Wendell,	8 86.7	700 00	18 20	718 20	81
7	Deerfield,	8 61.3	5,000 00	168 80	5,168 80	598
16	Montague,	8 53.2	11,961 85	—	11,961 85	1,402
15	New Salem,	8 15.6	1,100 00	33 65	1,133 65	139
23	Whately,	7 59.5	1,200 00	—	1,200 00	158
19	Heath,	7 47.7	800 00	—	800 00	107
21	Leverett,	7 26.8	860 00	55 76	915 76	126
20	Rowe,	6 95.4	700 00	30 18	730 18	105
24	Colrain,	6 61.6	2,400 00	61 05	2,461 05	372
22	Charlton,	6 28.3	1,200 00	—	1,200 00	191
25	Shutesbury,	6 21.7	600 00	40 30	640 30	103
26	Monroe,	4 16.7	200 00	—	200 00	48

HAMPDEN COUNTY.

3	LONGMEADOW	\$22 68.9	\$3,800 00	\$170 55	\$3,970 55	175
1	Springfield,	16 77.3	107,612 45	—	107,612 45	6,416
6	Westfield,	13 00.8	22,400 00	—	22,400 00	1,722
9	Montgomery,	12 91	500 00	55 12	555 12	43
2	West Springfield,	12 01.7	10,557 48	414 41	10,971 89	913
5	Granville,	11 73.5	2,300 00	—	2,300 00	196
17	Blandford,	11 25.3	1,800 00	90 46	1,890 46	168
11	Southwick,	11 20	1,500 00	202 40	1,702 40	152
14	Holyoke,	10 86.1	68,317 23	1,215 00	69,532 33	6,402
8	Monson,	10 52.4	6,500 00	877 61	7,377 61	701
7	Ludlow,	10 33.5	3,500 00	179 23	3,679 23	356
19	Hampden,	10 32.5	1,325 00	110 24	1,435 24	139

\$164 14

BOARD OF EDUCATION.

HAMPDEN COUNTY — CONCLUDED.

For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
15	13	Tolland,	\$9 68.4	\$500 00	\$52 00	\$552 00	57	—
16	14	Chicopee,	9 66.6	21,506 50	—	21,506 50	2,225	—
4	15	Wilbraham,	9 56.3	2,200 00	133 37	2,333 37	244	—
18	16	Brimfield,	9 22	1,300 00	—	1,300 00	141	—
10	17	Palmer,	8 91.3	11,300 00	447 57	11,747 57	1,318	—
21	18	Russell,	8 81.3	1,000 00	92 81	1,092 81	124	—
12	19	Agawam,	8 75.6	3,800 00	201 37	4,001 37	457	—
20	20	Chester,	8 52.9	1,800 00	118 95	1,918 95	225	—
13	21	Holland,	7 45.2	200 00	23 56	223 56	30	—
22	22	Wales,.	5 85.4	800 00	54 65	854 65	146	—

HAMPSHIRE COUNTY.

For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	GRANBY,	\$16 31.3	\$1,800 00	\$106 47	\$1,906 47	123	—
3	2	Amherst,	15 19	8,595 24	321 17	8,916 41	587	—
6	3	Enfield,	13 58.5	2,000 00	78 44	2,078 44	153	—
2	4	South Hadley,	13 08.2	8,550 00	306 22	8,856 22	677	—
14	5	Greenwich,	12 56.5	715 18	38 72	753 90	60	—
5	6	Northampton,	12 15.7	28,200 00	987 96	29,187 96	2,401	—
7	7	Easthampton,	11 31.3	8,050 00	265 30	8,315 30	735	—
11	8	Southampton,	10 29.9	1,450 00	105 15	1,555 15	151	—
17	9	Worthington,	9 86.1	1,000 00	203 00	1,203 00	122	—
12	10	Hadley,	9 61.5	3,000 00	—	3,000 00	312	—

SCHOOL RETURNS.

13	Middlefield,	.	.	9 56.2	800 00	79 72	879 72	92
10	Ware, .	.	.	9 27.2	13,750 00	-	13,750 00	1,483
9	Belchertown,	.	.	9 25.5	4,000 00	285 10	4,285 10	463
20	Huntington,	.	.	8 97.4	2,100 00	-	2,100 00	234
8	Cumington,	.	.	8 47.5	1,000 00	59 40	1,059 40	125
19	Williamsburg,	.	.	8 29.3	3,000 00	168 06	3,168 06	382
4	Westhampton,	.	.	8 28.9	865 60	46 23	911 83	110
22	Hatfield, .	.	.	8 11.6	1,850 00	89 75	1,939 75	239
18	Chesterfield,	.	.	8 04.7	900 00	57 64	957 64	119
16	Pelham, .	.	.	7 79.9	700 00	72 15	772 15	99
21	Prescott,	.	.	7 60.4	500 00	77 94	577 94	76
23	Plainfield,	.	.	6 85.2	425 00	40 92	465 92	68
15	Goshen,	.	.	6 66.7	400 00	-	400 00	60
								\$17 00

MIDDLESEX COUNTY.

1	NEWTON,	\$26	\$104,772	\$2,690	\$107,463	4,087
2	Weston,	29.4	69	40	09	219
3	Belmont,	26 02.7	5,700 00	-	5,700 00	318
4	Lexington,	23 19.2	7,375 00	-	7,375 00	445
5	Medford,	22 47.2	10,000 00	-	10,000 00	1,600
6	Waltham,	21 98.3	35,173 59	-	35,173 59	2,763
7	Winchester,	20 20	55,812 95	-	55,812 95	804
8	Arlington,	19 91.5	16,011 37	-	16,011 37	993
9	Concord,	19 55.6	19,419 23	-	19,419 23	619
10	Groton,	19 10.4	11,825 58	-	11,825 58	276
11	Bedford,	18 84.1	5,200 00	-	5,200 00	122
12	Watertown,	18 03.3	2,200 00	-	2,200 00	1,243
13	Ashby,	17 56	21,826 83	-	21,826 83	111
14	Melrose,	17 32.9	1,800 00	123 51	1,923 51	1,263
15	Littleton,	17 21.1	21,737 65	-	21,737 65	156
		16 99.5	2,500 00	151 15	2,651 15	

MIDDLESEX COUNTY — CONCLUDED.

For 1887-88.	For 1888-89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
14	16	Cambridge, .	\$16 89.5	\$198,130 04	-	\$198,130 04	11,727	\$119 00
22	17	Reading, .	16 81	9,800 00	-	9,800 00	583	-
15	18	Somerville, .	16 56.3	98,698 78	-	98,698 78	5,959	-
19	19	Malden, .	16 55.4	53,967 40	-	53,967 40	3,260	-
16	20	Acton, .	15 93.4	4,100 00	\$361 40	4,461 40	280	-
18	21	Stoneham, .	15 85.5	14,000 00	-	14,000 00	883	-
36	22	Lincoln, .	15 46.9	2,500 00	52 33	2,552 33	165	-
23	23	Frammingham, .	15 23.3	23,500 00	1,176 78	24,676 78	1,620	-
25	24	Stow, .	14 64.5	2,000 00	138 18	2,138 18	146	-
31	25	Sherborn, .	14 42.6	2,625 00	115 99	2,740 99	190	-
41	26	Holliston, .	14 30.6	6,595 09	-	6,595 09	461	-
27	27	Lowell, .	14 11	173,501 94	-	173,501 94	12,296	-
37	28	Wayland, .	14 06.5	4,800 00	179 07	4,979 07	354	-
29	29	Natick, .	13 66.6	23,000 00	-	23,000 00	1,683	-
30	30	Townsend, .	13 41	3,500 00	-	3,500 00	261	-
26	31	Everett, .	13 35.7	18,900 00	-	18,900 00	1,415	-
17	32	Tyngsborough, .	13 01.4	1,000 00	67 12	1,067 12	82	-
32	33	North Reading, .	13 00.2	1,800 00	85 33	1,885 33	145	-
4	34	Boxborough, .	12 90.3	800 00	-	800 00	62	-
53	35	Westford, .	12 59.8	4,800 00	-	4,800 00	381	-
35	36	Chelmsford, .	12 57.6	5,000 00	357 58	5,357 58	426	30 00
34	37	Wakefield, .	12 52.4	17,000 00	220 00	17,220 00	1,375	-
46	38	Pepperell, .	12 12.1	5,600 00	-	5,600 00	462	-
51	39	Maynard, .	11 77.1	6,191 51	-	6,191 51	526	-
43	40	Dunstable, .	11 76.5	800 00	-	800 00	68	-
47	41	Hudson, .	11 74.5	8,800 00	220 30	9,020 30	768	-

NANTUCKET COUNTY.

44	42	Woburn,	11 73.4	31,600 00	-	31,600 00	2,693
39	43	Sudbury,	11 69.3	2,000 00	174 84	2,174 84	186
24	44	Carlisle,	11 62.8	1,000 00	-	1,000 00	86
45	45	Wilmington,	11 54.1	2,000 00	146 64	2,146 64	186
38	46	Ashland,	11 41.6	5,000 00	-	5,000 00	438
33	47	Tewksbury,	10 90.9	3,000 00	-	3,000 00	275
49	48	Marlborough,	10 73	25,720 15	-	25,720 15	2,397
50	49	Ayer,	10 67.8	4,500 00	187 81	4,687 81	439
52	50	Burlington,	10 50.9	1,000 00	114 00	1,114 00	106
42	51	Shirley,	10 48.5	2,000 00	117 88	2,117 88	202
40	52	Hopkinton,	10 41.4	7,000 00	477 14	7,477 14	718
54	53	Billerica,	9 54.7	4,000 00	-	4,000 00	419
48	54	Dracut,	9 14	3,000 00	135 00	3,135 00	343

NORFOLK COUNTY.

		NANTUCKET,	\$8 82.2	\$4,940 29	-	\$4,940 29	560	-
2	1	BROOKLINE,	\$28 03.3	\$52,339 43	-	\$52,339 43	1,867	-
1	2	Wellesley,	27 75.8	11,513 36	\$339 26	11,852 62	427	-
3	3	Milton,	25 11.3	15,820 89	-	15,820 89	630	-
13	4	Dover,	22 97	1,965 00	102 34	2,067 34	90	-
6	5	Dedham,	22 40.4	27,959 73	-	27,959 73	1,248	-
4	6	Cohasset,	22 09.3	7,341 10	281 08	7,622 18	345	-
7	7	Norwood,	20 36	11,300 00	-	11,300 00	555	-
5	8	Needham,	18 20	8,900 00	-	8,900 00	489	-

BOARD OF EDUCATION.

NORFOLK COUNTY — CONCLUDED.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
For 1887-88.	For 1888-89.							
8	9	Walpole,	\$17 99.9	\$7,320 00	\$347 54	\$7,667 54	426	-
9	10	Randolph,	17 45.9	9,450 00	1,549 40	10,999 40	630	-
16	11	Medfield,	17 45.7	3,491 32	-	3,491 32	200	-
10	12	Weymouth,	15 77.1	26,612 23	813 04	27,425 27	173	-
12	13	Hyde Park,	15 60	27,503 57	-	27,503 57	1,763	-
14	14	Holbrook,	15 17.2	6,600 00	-	6,600 00	435	-
19	15	Foxborough,	14 61	6,250 00	397 66	6,647 66	455	-
18	16	Canton,	14 53.3	10,619 64	701 51	11,321 15	779	-
21	17	Brantree,	14 44.7	8,400 00	1,106 20	9,506 20	658	-
17	18	Wrentham,	14 28.1	6,000 00	383 58	6,383 58	447	-
11	19	*Millis,	14 00.9	1,737 13	-	1,737 13	124	-
15	20	Sharon,	13 60.8	2,800 00	153 00	2,953 00	217	-
20	21	Medway,	12 90.4	5,500 00	294 00	5,794 00	449	-
22	22	Quincy,	11 56.4	38,113 86	-	38,113 86	3,296	-
23	23	Bellingham,	10 33.2	2,165 00	108 12	2,273 12	220	-
26	24	Franklin,	10 29.5	8,500 00	1,012 76	9,512 76	924	-
25	25	Norfolk,	9 32.2	1,500 00	159 26	1,659 26	178	-
24	26	Stoughton,	8 91.2	6,826 21	-	6,826 21	766	-
-	27	Avon,	8 86.1	2,002 52	-	2,002 52	226	-

PLYMOUTH COUNTY.

For 1887-88.	For 1888-89.							
1	1	INGHAM,	\$20 38.1	\$12,717 75	-	\$12,717 75	624	-
2	2	Bridgewater,	20 15.8	9,550 00	\$508 70	10,058 70	499	-
21	3	Lakeville,	15 30.6	2,295 85	-	2,295 85	150	-

SCHOOL RETURNS.

CV

5	4	Plymouth,	15	11.3	20,265 92	-	20,265 92	1,341
12	5	Kingston,	14	36.5	3,250 00	197 51	3,447 51	240
19	6	West Bridgewater,	11	05.6	3,500 00	-	3,500 00	249
3	7	Hull,	13	79.3	1,200 00	-	1,200 00	87
4	8	Abington,	13	76	8,971 83	-	8,971 83	652
8	9	East Bridgewater,	13	73.4	5,600 00	415 41	6,015 41	438
7	10	Brockton,	13	40.6	49,332 82	911 66	50,244 48	3,748
6	11	Middleborough,	13	29.5	11,500 00	-	11,500 00	865
13	12	Norwell,	13	07.9	3,000 00	256 80	3,256 80	249
10	13	Mattapoisett,	12	80.1	2,125 00	-	2,125 00	166
9	14	Rockland,	12	71.4	10,400 00	-	10,400 00	818
16	15	Hanover,	12	02.4	3,450 00	265 48	3,715 48	309
15	16	Marion,	11	80.8	2,000 00	90 00	2,090 00	177
25	17	Hanson,	11	63.2	2,125 00	154 79	2,279 79	196
24	18	Whitman,	11	33.8	7,000 00	517 03	7,517 03	663
14	19	Duxbury,	11	20.2	3,000 00	282 18	3,282 18	293
20	20	Wareham,	10	97.1	6,200 00	404 59	6,604 59	602
17	21	Plympton,	10	79.2	800 00	106 56	906 56	84
23	22	Scituate,	10	69.2	5,000 00	239 13	5,239 13	490
11	23	Marshfield,	10	43.8	2,000 00	265 15	2,265 15	217
22	24	Pembroke,	10	20.6	1,896 80	215 80	2,112 60	207
18	25	Rochester,	10	17.6	1,600 00	99 35	1,699 35	167
26	26	Carver,	9	32.8	1,200 00	124 58	1,324 58	142
27	27	Dartmouth,	7	27.3	800 00	-	800 00	110

SUFFOLK COUNTY.

1	1	BOSTON,	\$20	66.8	\$1,459,990 76	\$40,272 97	\$1,500,263 73	72,590
4	2	Revere,	14	71.9	12,340 65	568 00	12,908 65	877
3	3	Chelsea,	13	61.4	65,780 67	-	65,780 67	4,832
2	4	Winthrop,	11	61.5	3,000 00	310 40	3,310 40	285

BOARD OF EDUCATION.

WORCESTER COUNTY.

	For 1887-'88.	For 1888-'89.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	1	NEW BRANTREE,	\$20 51.9	\$1,589 00	\$73 00	\$1,662 00	81	-
4	2	2	Harvard, . . .	18 65.7	2,500 00	-	2,500 00	134	-
2	3	3	Hopedale, . . .	18 30.8	3,899 70	-	3,899 70	213	-
3	4	4	Sterling, . . .	17 39.5	3,496 30	-	3,496 30	201	-
6	5	5	Lancaster, . . .	17 13.4	5,500 00	-	5,500 00	321	\$50 00
5	6	6	Shrewsbury, . . .	15 81	4,000 00	-	4,000 00	253	-
9	7	7	Worcester, . . .	14 96.9	214,442 37	-	214,442 37	14,326	-
11	8	8	Westborough, . . .	14 72.2	12,175 00	-	12,175 00	827	-
7	9	9	Barre, . . .	14 05.8	4,583 00	-	4,583 00	326	-
10	10	10	Upton, . . .	14 02.1	4,599 01	-	4,599 01	328	-
17	11	11	Southborough, . . .	13 32.2	4,600 00	302 54	4,902 54	368	-
12	12	12	Leominster, . . .	13 26.6	13,200 00	-	13,200 00	995	-
34	13	13	Mendon, . . .	13 20.2	1,500 00	150 19	1,650 19	125	-
15	14	14	Fitchburg, . . .	13 09.4	47,019 73	-	47,019 73	3,591	-
24	15	15	Northborough, . . .	13 06.5	3,500 00	210 58	3,710 58	284	-
29	16	16	Milford, . . .	13 05.3	17,955 89	383 01	18,338 90	1,405	-
19	17	17	Princeton, . . .	12 67.2	2,000 00	141 60	2,141 60	169	-
26	18	18	North Brookfield, . . .	12 64.5	9,000 00	395 37	9,395 37	743	-
27	19	19	Warren, . . .	12 33.2	11,000 00	-	11,000 00	892	-
20	20	20	Lunenburg, . . .	12 30.6	1,700 00	269 00	1,969 00	160	-
8	21	21	Oxford, . . .	12 28.5	5,000 00	-	5,000 00	407	50 00
14	22	22	West Brookfield, . . .	12 24.5	3,000 00	-	3,000 00	245	-
28	23	23	Spencer, . . .	12 22.4	23,250 00	-	23,250 00	1,902	-
32	24	24	Brookfield, . . .	12 18.5	5,900 00	278 00	6,178 00	507	-
21	25	25	Holden, . . .	11 99.9	5,640 24	335 49	5,975 73	498	290 00
25	26	26	Ashburnham, . . .	11 64.7	3,500 00	180 58	3,680 58	316	-

39	27	Inbardsdon,	.	.	.	11 64	2,072 00	-	2,072 00	178
30	28	Westminster,	.	.	.	11 58.1	3,208 06	-	3,208 06	277
22	29	Uxbridge,	.	.	.	11 57.4	7,500 00	-	7,500 00	648
18	30	Charlton,	.	.	.	11 46.5	3,000 00	267 54	3,267 54	285
16	31	Bolton,	.	.	.	11 45	1,500 00	-	1,500 00	131
36	32	Abhol,	.	.	.	11 35.1	8,598 53	311 81	8,910 34	785
23	33	Leicester,	.	.	.	11 35.1	6,000 00	345 47	6,345 47	559
13	34	Northbridge,	.	.	.	11 07.2	8,800 00	301 46	9,101 46	822
41	35	Grafton,	.	.	.	11 04.3	9,950 00	-	9,950 00	901
44	36	Douglas,	.	.	.	10 80.4	4,300 00	-	4,300 00	398
33	37	Petersham,	.	.	.	10 68.2	1,600 00	215 86	1,815 86	170
48	38	Boylston,	.	.	.	10 66.7	1,600 00	-	1,600 00	150
31	39	Clinton,	.	.	.	10 44.9	20,480 00	-	20,480 00	1,960
37	40	Rutland,	.	.	.	10 40.5	1,800 00	-	1,800 00	173
42	41	Millbury,	.	.	.	9 95.6	9,000 00	-	9,000 00	904
35	42	Gardner,	.	.	.	9 91.9	13,172 96	-	13,172 96	1,328
40	43	Hardwick,	.	.	.	9 67.6	4,000 00	218 60	4,218 60	436
47	44	West Boylston,	.	.	.	9 50.6	5,000 00	-	5,000 00	526
38	45	Templeton,	.	.	.	9 42.9	4,700 00	203 26	4,923 26	520
45	46	Phillipston,	.	.	.	9 38.7	700 00	107 30	807 30	86
54	47	Sutton,	.	.	.	9 32.9	4,950 00	684 86	5,634 86	604
51	48	Royalston,	.	.	.	9 07.7	1,600 00	88 38	1,688 38	186
59	49	Auburn,	.	.	.	8 26.4	2,000 00	-	2,000 00	242
46	50	Sturbridge,	.	.	.	8 08.1	3,200 00	-	3,200 00	396
49	51	Winchendon,	.	.	.	8 03.5	5,616 29	-	5,616 29	699
43	52	Berlin,	.	.	.	8 01.4	1,100 00	94 10	1,194 10	149
56	53	Southbridge,	.	.	.	7 86.7	12,100 00	-	12,100 00	1,538
53	54	Oakham,	.	.	.	7 72.4	850 00	115 47	965 47	125
55	55	Blackstone,	.	.	.	7 64.6	7,800 00	350 70	8,150 70	1,066
50	56	Dudley,	.	.	.	7 31.3	4,000 00	171 07	4,171 07	568
58	57	Webster,	.	.	.	6 81.1	7,900 00	340 72	8,240 72	1,210
57	58	Dana,	.	.	.	6 71.9	700 00	72 70	772 70	115
52	59	Paxton,	.	.	.	6 55.9	551 00	-	551 00	84

GRADUATED TABLES — FIRST SERIES.

Showing the Comparative Amount of Money appropriated by the different Counties in the State for the Education of each Child between the Ages of 5 and 15 Years in the County.

For 1887-88.	For 1888-89.	COUNTIES.	Sum appropriated by counties for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	Suffolk,	\$20 13.5	\$1,541,112 08	\$41,151 37	\$1,582,263 45	78,584	—
2	2	Norfolk,	16 66.1	318,531 09	7,748 72	326,279 81	19,583	—
3	3	Middlesex,	16 09.4	1,104,584 80	7,292 45	1,111,877 25	69,085	\$249 00
4	4	Plymouth,	13 48.3	180,780 97	5,054 72	185,835 69	13,783	—
5	5	Barnstable,	13 33.1	62,358 86	1,974 43	64,333 29	4,826	—
6	6	Bristol,	12 58.3	384,446 97	5,192 24	389,639 21	30,966	—
7	7	Essex,	12 50.2	596,777 14	9,167 74	605,944 88	48,467	40 00
8	8	Hampden,	12 48.1	274,518 76	4,439 30	278,958 06	22,350	1,132 44
9	9	Worcester,	12 34.4	583,899 08	6,608 66	590,507 74	47,886	390 00
10	10	Dukes,	11 16.6	6,209 00	323 30	6,532 30	585	19 35
11	11	Hampshire,	10 93.9	93,651 02	3,389 34	97,040 36	8,871	17 00
12	12	Franklin,	9 91.2	67,931 85	1,366 02	69,297 87	6,991	31 00
13	13	Berkshire,	9 70.5	146,863 88	1,602 90	148,466 28	15,298	—
14	14	Nantucket,	8 82.2	4,940 29	—	4,940 29	560	—

AGGREGATE FOR THE STATE.

STATE,	\$14 85.1	\$5,366,605 29	\$95,311 19	\$5,461,916 48	367,785	\$1,878 79
------------------	-----------	----------------	-------------	----------------	---------	------------

GRADUATED TABLES — FIRST SERIES.

Showing the Comparative Amount of Money, including Voluntary Contributions, appropriated by the different Counties in the State for the Education of each Child between the Ages of 5 and 15 Years in the County.

For 1887-88.	For 1888-89.	COUNTIES.	TOTALS.
1	1	Suffolk,	\$20 13.5
2	2	Norfolk,	16 66.1
3	3	Middlesex,	16 09.8
4	4	Plymouth,	13 48.3
5	5	Barnstable,	13 33.1
7	6	Bristol,	12 58.3
9	7	Hampden,	12 53.2
6	8	Essex,	12 50.3
8	9	Worcester,	12 35.3
10	10	Dukes,	11 19.9
11	11	Hampshire,	10 94.1
12	12	Franklin,	9 91.7
13	13	Berkshire,	9 70.5
14	14	Nantucket,	8 82.2
STATE,			\$14 89.1

GRADUATED TABLES — SECOND SERIES.

The next Table exhibits the appropriation of the cities and towns, as compared with their respective valuation in 1887.

* The first column shows the rank of the cities and towns in a similar Table for 1887-88, according to their valuation in 1887.

The second column indicates, in numerical order, the precedence of the cities and towns in respect to the liberality of their appropriations for 1888-89, according to their valuation in 1888.

The third consists of the names of the cities and towns, as numerically arranged.

The fourth shows the percentage of taxable property appropriated to the support of the public schools. The result is equivalent in value to mills and hundredths of mills. The decimals are carried to three figures, in order to indicate more perfectly the distinction between the different towns. The first figure (mills) expresses the principal value, and is separated from the last two figures by a dash.

The appropriations for schools are not given in the following Table, as they may be found by referring to the previous Tables; also in the Abstract of School Returns, commencing on page ii. These appropriations include the sum raised by taxes, the income of the surplus revenue, and of such other funds as the towns may appropriate at their option, either to support common schools, or to pay ordinary municipal expenses. The income of other local funds, and the voluntary contributions, are not included in the estimate. The appropriations are reckoned the same as in the first series of Tables, and for the same reasons.

The amount of taxable property in each city and town, according to the last State valuation, is also omitted, as it is already given in the foregoing Abstract of School Returns.

If the rank assigned to towns in the next Tables is compared with the rank of the same town in the former series, it will be seen that they hold, in many instances, a very different place in the scale.

GRADUATED TABLES—SECOND SERIES.

[FOR THE STATE.]

A Graduated Table in which all the Towns in the State are numerically arranged according to the Percentage of their Taxable Property appropriated to the Support of Public Schools for the Year 1888-89.

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.
5	1	WEST STOCKBRIDGE,	\$0.006-79	189	34	Florida, . . .	\$0.004-81
3	2	Sandwich, . .	6-78	350	35	N. Attleboro', .	4-76
7	3	Wellfleet, . .	6-52	42	36	Sandisfield, . .	4-75
2	4	Granville, . .	6-38	76	37	Foxborough, . .	4-74
4	5	Holbrook, . .	6-19	31	38	Wrentham, . .	4-74
1	6	Truro, . . .	5-98	48	39	Westborough, .	4-71
9	7	Spencer, . . .	5-80	19	40	Weymouth, . .	4-65
6	8	Hawley, . . .	5-68	38	41	Somerset, . . .	4-64
8	9	Holden, . . .	5-58	81	42	Warren, . . .	4-61
25	10	Leyden, . . .	5-58	34	43	Millbury, . . .	4-60
13	11	Randolph, . .	5-47	11	44	Georgetown, . .	4-59
24	12	Adams, . . .	5-42	37	45	Pelham, . . .	4-59
145	13	Dedham, . . .	5-30	54	46	Bridgewater, . .	4-58
12	14	Chatham, . . .	5-29	44	47	Dighton, . . .	4-57
182	15	Lakeville, . .	5-27	30	48	Palmer, . . .	4-53
17	16	Bernardston, .	5-26	115	49	Westford, . . .	4-51
29	17	Upton, . . .	5-21	35	50	Hinsdale, . . .	4-49
14	18	Belchertown, .	5-19	45	51	Ludlow, . . .	4-45
16	19	Blandford, . .	5-13	83	52	Fairhaven, . . .	4-44
15	20	South Hadley, .	5-13	43	53	Groveland, . . .	4-44
105	21	Erving, . . .	5-04	40	54	Templeton, . . .	4-44
21	22	Harwich, . . .	4-99	46	55	Medway, . . .	4-43
23	23	N. Brookfield, .	4-99	75	56	Natick, . . .	4-43
36	24	Monson, . . .	4-95	50	57	Bradford, . . .	4-42
10	25	Marlborough, .	4-94	39	58	Hopedale, . . .	4-42
62	26	Brookfield, . .	4-92	91	59	Franklin, . . .	4-41
33	27	Merrimac, . . .	4-91	66	60	Northbridge, . .	4-36
18	28	Heath, . . .	4-90	120	61	Huntington, . .	4-35
55	29	Rehoboth, . . .	4-90	67	62	Colrain, . . .	4-34
41	30	Bourne, . . .	4-88	74	63	Grafton, . . .	4-34
56	31	Buckland, . . .	4-86	28	64	Dudley, . . .	4-33
69	32	Norwood, . . .	4-85	141	65	Holliston, . . .	4-32
22	33	Orleans, . . .	4-85	208	66	Sutton, . . .	4-32

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
61	67	Walpole, .	4-004-32	140	117	Haverhill, .	4-003-78
26	68	Abington, .	4-31	143	118	N'w Braintree, .	3-78
51	69	N. Andover, .	4-30	106	119	Montague, .	3-77
58	70	Stoneham, .	4-29	116	120	N. Reading, .	3-77
49	71	W. Boylston, .	4-29	132	121	Plymouth, .	3-77
63	72	Needham, .	4-28	157	122	Milford, .	3-76
53	73	Rockland, .	4-25	118	123	Oxford, .	3-76
52	74	Waltham, .	4-24	114	124	Rowe, .	3-75
79	75	Westminster, .	4-24	137	125	Ashland, .	3-73
47	76	Eastham, .	4-23	147	126	Ayer, .	3-73
27	77	Deerfield, .	4-22	172	127	Norwell, .	3-73
71	78	North Adams, .	4-22	123	128	Wilbraham, .	3-73
121	79	Peabody, .	4-22	72	129	Ashburnham, .	3-71
92	80	Shutesbury, .	4-20	101	130	Bellingham, .	3-71
20	81	Gay Head, .	4-19	109	131	Berkley, .	3-71
70	82	Wareham, .	4-19	129	132	Millis, .	3-71
65	83	Brewster, .	4-18	158	133	Swansea, .	3-71
95	84	Douglas, .	4-18	169	134	Westhampton, .	3-71
94	85	Cheshire, .	4-17	160	135	Chester, .	3-70
32	86	Granby, .	4-16	87	136	Clinton, .	3-70
136	87	Sheffield, .	4-15	164	137	Uxbridge, .	3-69
267	88	Auburn, .	4-14	111	138	W. Newbury, .	3-69
318	89	Attleborough, .	4-13	133	139	Rutland, .	3-68
59	90	Dennis, .	4-12	144	140	Woburn, .	3-68
73	91	Otis, .	4-11	98	141	Peru, .	3-67
85	92	Orange, .	4-08	153	142	Marblehead, .	3-65
82	93	Ashby, .	4-07	119	143	Concord, .	3-64
190	94	G. Barrington, .	4-07	216	144	Holyoke, .	3-64
84	95	Hudson, .	4-05	128	145	Chicopee, .	3-63
135	96	E. Bridgew'r, .	4-04	166	146	Winchester, .	3-63
102	97	Montgomery, .	4-01	176	147	Melrose, .	3-62
57	98	Hyde Park, .	4-00	130	148	Rochester, .	3-62
78	99	Wakefield, .	4-00	124	149	Williamsburg, .	3-62
89	100	Gloucester, .	3-99	227	150	W. Bridgew'r, .	3-61
64	101	Sterling, .	3-95	96	151	Salisbury, .	3-58
230	102	Worthington, .	3-95	149	152	Wendell, .	3-58
243	103	Hanson, .	3-94	103	153	Charlton, .	3-57
77	104	Longmeadow, .	3-94	177	154	Townsend, .	3-56
154	105	Medford, .	3-94	155	155	Norfolk, .	3-55
90	106	Middleboro', .	3-93	194	156	Conway, .	3-54
86	107	Quincy, .	3-91	206	157	Hampden, .	3-54
104	108	Raynham, .	3-91	168	158	Clarksburg, .	3-53
99	109	Shrewsbury, .	3-91	88	159	Essex, .	3-52
107	110	New Salem, .	3-89	126	160	Washington, .	3-52
122	111	Provincetown, .	3-89	142	161	Middlefield, .	3-51
138	112	Reading, .	3-84	139	162	Charlemont, .	3-50
112	113	W. Brookfield, .	3-83	162	163	Hingham, .	3-50
198	114	Southbridge, .	3-81	200	164	Malden, .	3-50
-	115	Avon, .	3-80	148	165	Norton, .	3-50
100	116	Arlington, .	3-78	181	166	Acushnet, .	3-49

For 1887-88, by the State Valuation of 1887.				For 1887-88, by the State Valuation of 1887.			
For 1888-89, by the State Valuation of 1888.		TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1888-89, by the State Valuation of 1888.		TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
152	167	Shelburne, .	\$.003-49	159	217	Warwick, .	\$.003-25
150	168	Danvers, .	3-48	218	218	Leominster, .	3-24
226	169	Webster, .	3-48	199	219	Gill, .	3-23
80	170	Windsor, .	3-48	263	220	Halifax, .	3-23
184	171	Easthampton, .	3-47	219	221	Monterey, .	3-23
183	172	Wayland, .	3-45	221	222	Newton, .	3-23
173	173	Framingham, .	3-44	315	223	Dover, .	3-22
266	174	Enfield, .	3-43	241	224	Taunton, .	3-22
185	175	Fitchburg, .	3-43	224	225	Athol, .	3-21
171	176	Somerville, .	3-43	175	226	Boxborough, .	3-21
236	177	Southboro', .	3-43	131	227	Barnstable, .	3-20
204	178	Ware, .	3-43	212	228	Lanesboro', .	3-20
108	179	Westport, .	3-43	225	229	Cambridge, .	3-17
249	180	Tyringham, .	3-41	246	230	Canton, .	3-17
207	181	Westfield, .	3-41	237	231	Fall River, .	3-17
187	182	Acton, .	3-40	244	232	Leverett, .	3-16
232	183	Littleton, .	3-40	291	233	Maynard, .	3-16
146	184	Pittsfield, .	3-40	215	234	Watertown, .	3-16
97	185	Gardner, .	3-39	213	235	Southampton, .	3-15
117	186	Tolland, .	3-39	229	236	Bolton, .	3-14
113	187	Cummington, .	3-38	179	237	Ipswich, .	3-14
134	188	Savoy, .	3-36	238	238	Northampton, .	3-14
110	189	Stoughton, .	3-36	248	239	Plainfield, .	3-13
93	190	W. Springfield, .	3-36	223	240	Plympton, .	3-13
165	191	Leicester, .	3-35	210	241	Saugus, .	3-12
196	192	Lynn, .	3-35	268	242	Braintree, .	3-10
167	193	Chelmsford, .	3-34	202	243	Northfield, .	3-10
125	194	Hopkinton, .	3-34	163	244	Rowley, .	3-10
180	195	Pembroke, .	3-34	242	245	Hadley, .	3-09
257	196	Pepperell, .	3-34	253	246	Salem, .	3-09
220	197	Rockport, .	3-34	151	247	Hardwick, .	3-07
186	198	Tisbury, .	3-34	235	248	Lexington, .	3-07
209	199	Chelsea, .	3-33	260	249	Southwick, .	3-07
195	200	Hanover, .	3-33	191	250	Becket, .	3-06
205	201	Blackstone, .	3-32	269	251	Boylston, .	3-06
217	202	Brockton, .	3-32	222	252	Petersham, .	3-06
60	203	Mansfield, .	3-32	261	253	Wenham, .	3-04
234	204	Wilmington, .	3-32	239	254	Whately, .	3-03
193	205	Worcester, .	3-32	252	255	Mendon, .	3-02
170	206	Barre, .	3-31	262	256	Wales, .	3-02
197	207	Shirley, .	3-31	258	257	Lowell, .	3-01
161	208	Sunderland, .	3-31	228	258	Williamstown, .	3-01
211	209	Ashfield, .	3-30	247	259	Goshen, .	2-98
174	210	Agawam, .	3-28	156	260	Tyngsboro', .	2-98
201	211	Methuen, .	3-28	231	261	Hubbardston, .	2-96
203	212	Sherborn, .	3-28	319	262	Medfield, .	2-96
192	213	Sturbridge, .	3-28	251	263	Northboro', .	2-96
188	214	Chesterfield, .	3-26	250	264	Amherst, .	2-95
178	215	N. Marlboro', .	3-26	245	265	Phillipston, .	2-93
233	216	Prescott, .	3-26	272	266	Lunenburg, .	2-90

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
214	267	Richmond, .	\$.002-89	311	310	Boxford, .	\$.002-34
273	268	Dartmouth, .	2-88	305	311	Burlington, .	2-32
289	269	Easton, .	2-87	288	312	Yarmouth, .	2-32
240	270	Winchendon, .	2-86	308	313	Newbury, .	2-26
287	271	Scituate, .	2-85	313	314	Carver, .	2-25
259	272	Duxbury, .	2-84	302	315	Newburyport, .	2-24
334	273	Greenwich, .	2-84	321	316	Cohasset, .	2-21
307	274	Mashpee, .	2-84	314	317	Hancock, .	2-19
275	275	Brimfield, .	2-81	322	318	Hatfield, .	2-19
265	276	Dalton, .	2-81	312	319	Tewksbury, .	2-17
276	277	New Bedford, .	2-81	295	320	Marshfield, .	2-11
256	278	Lee, .	2-80	292	321	Wellesley, .	2-11
127	279	Amesbury, .	2-78	316	322	Holland, .	2-09
290	280	Revere, .	2-76	323	323	Lancaster, .	2-07
264	281	Oakham, .	2-75	284	324	Lenox, .	2-05
271	282	Dana, .	2-74	327	325	Stockbridge, .	2-04
282	283	Dunstable, .	2-74	331	326	Kingston, .	2-02
293	284	Weston, .	2-74	300	327	Paxton, .	1-99
68	285	Monroe, .	2-73	320	328	Sudbury, .	1-99
280	286	Springfield, .	2-70	325	329	Boston, .	1-96
254	287	Bedford, .	2-69	326	330	Groton, .	1-88
277	288	Lawrence, .	2-69	333	331	Falmouth, .	1-78
294	289	Greenfield, .	2-68	332	332	Hamilton, .	1-74
279	290	Harvard, .	2-68	330	333	Swampscott, .	1-73
297	291	Princeton, .	2-68	329	334	Nantucket, .	1-67
278	292	Sharon, .	2-67	328	335	Lynnfield, .	1-59
286	293	Royalston, .	2-66	335	336	Lincoln, .	1-57
306	294	Whitman, .	2-62	343	337	Topsfield, .	1-56
298	295	Belmont, .	2-59	336	338	Beverly, .	1-45
296	296	Freetown, .	2-55	346	339	New Ashford, .	1-44
309	297	Marion, .	2-54	337	340	Mattapoisett, .	1-42
303	298	Russell, .	2-48	341	341	Alford, .	1-40
274	299	Carlisle, .	2-47	255	342	Everett, .	1-37
324	300	Edgartown, .	2-47	339	343	Mt. Wash'ton, .	1-36
299	301	Berlin, .	2-44	340	344	Brookline, .	1-27
270	302	Dracut, .	2-44	342	345	Milton, .	1-12
310	303	Billerica, .	2-42	344	346	Winthrop, .	1-09
281	304	Stow, .	2-42	338	347	Gosnold, .	0-99
301	305	Egremont, .	2-37	345	348	Cottage City, .	0-94
285	306	Middleton, .	2-37	347	349	Nahant, .	0-84
317	307	Chilmark, .	2-35	348	350	Hull, .	0-55
304	308	Seekonk, .	2-35	349	351	Manchester, .	0-49
283	309	Andover, .	2-34				

GRADUATED TABLES—SECOND SERIES.

[COUNTY TABLES.]

In which all the Towns in the respective Counties in the State are numerically arranged according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the Year 1888-89.

BARNSTABLE COUNTY.

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.
2	1	SANDWICH, .	\$.006-78	10	9	Brewster, .	\$.004-18
3	2	Wellfleet, .	6-52	9	10	Dennis, .	4-12
1	3	Truro, .	5-98	11	11	Provincetown,	3-89
4	4	Chatham, .	5-29	12	12	Barnstable, .	3-20
5	5	Harwich, .	4-99	14	13	Mashpee, .	2-84
7	6	Bourne, .	4-88	13	14	Yarmouth, .	2-32
6	7	Orleans, .	4-85	15	15	Falmouth, .	1-78
8	8	Eastham, .	4-23				

BERKSHIRE COUNTY.

1	1	WEST STOCKBRIDGE, .	\$.006-79	11	17	Savoy, .	\$.003-36
2	2	Adams, .	5-42	15	18	N. Marlboro', .	3-26
16	3	Florida, .	4-81	21	19	Monterey, .	3-23
4	4	Sandisfield, .	4-75	19	20	Lanesboro', .	3-20
3	5	Hinsdale, .	4-49	18	21	Becket, .	3-06
5	6	North Adams,	4-22	22	22	Williamstown,	3-01
8	7	Cheshire, .	4-17	20	23	Richmond, .	2-89
12	8	Sheffield, .	4-15	25	24	Dalton, .	2-81
6	9	Otis, .	4-11	24	25	Lee, .	2-80
17	10	Gt. Barrington,	4-07	27	26	Egremont, .	2-37
9	11	Peru, .	3-67	28	27	Hancock, .	2-19
14	12	Clarksburg, .	3-53	26	28	Lenox, .	2-05
10	13	Washington, .	3-52	29	29	Stockbridge, .	2-04
7	14	Windsor, .	3-48	32	30	New Ashford,	1-44
23	15	Tyringham, .	3-41	31	31	Alford, .	1-40
13	16	Pittsfield, .	3-40	30	32	Mt. Wash'ton,	1-36

BOARD OF EDUCATION.

BRISTOL COUNTY.

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
3	1	REHOBOTH, .	\$.004-90	11	11	Aenshnet, .	2/3 .003-49
20	2	N. Attleboro', .	4-76	7	12	Westport, .	3-43
1	3	Somerset, .	4-64	4	13	Mansfield, .	3-32
2	4	Dighton, .	4-57	13	14	Taunton, .	3-22
5	5	Fairhaven, .	4-44	12	15	Fall River, .	3-17
19	6	Attleborough, .	4-13	14	16	Dartmouth, .	2-88
6	7	Raynham, .	3-91	16	17	Easton, .	2-87
8	8	Berkley, .	3-71	15	18	New Bedford, .	2-81
10	9	Swansea, .	3-71	17	19	Freetown, .	2-55
9	10	Norton, .	3-50	18	20	Seekonk, .	2-35

DUKES COUNTY.

1	1	GAY HEAD, .	\$.004-19	3	4	Chilmark, .	\$.002-35
2	2	Tisbury, .	3-34	5	5	Gosnold, .	0-99
4	3	Edgartown, .	2-47	6	6	Cottage City, .	0-94

ESSEX COUNTY.

2	1	MERRIMAC, .	\$.004-91	15	19	Rowley, .	\$.003-10
1	2	Georgetown, .	4-59	21	20	Salem, .	3-09
3	3	Groveland, .	4-44	22	21	Wenham, .	3-04
4	4	Bradford, .	4-42	11	22	Amesbury, .	2-78
5	5	N. Andover, .	4-30	23	23	Lawrence, .	2-69
10	6	Peabody, .	4-22	25	24	Middleton, .	2-37
7	7	Gloucester, .	3-99	24	25	Andover, .	2-34
12	8	Haverhill, .	3-78	28	26	Boxford, .	2-34
9	9	W. Newbury, .	3-69	27	27	Newbury, .	2-26
14	10	Marblehead, .	3-65	26	28	Newburyport, .	2-24
8	11	Salisbury, .	3-58	31	29	Hamilton, .	1-74
6	12	Essex, .	3-52	30	30	Swampscott, .	1-73
13	13	Danvers, .	3-48	29	31	Lynnfield, .	1-59
17	14	Lynn, .	3-35	33	32	Topsfield, .	1-56
20	15	Rockport, .	3-34	32	33	Beverly, .	1-45
18	16	Methuen, .	3-28	34	34	Nahant, .	0-84
16	17	Ipswich, .	3-14	35	35	Manchester, .	0-49
19	18	Saugus, .	3-12				

SCHOOL RETURNS.

cxvii

FRANKLIN COUNTY.

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
1	1	HAWLEY, . .	\$.005-68	16	14	Wendell, . .	\$.003-58
4	2	Leyden, . .	5-58	20	15	Conway, . .	3-54
2	3	Bernardston, .	5-26	15	16	Charlemont, .	3-50
11	4	Erving, . .	5-04	17	17	Shelburne, . .	3-49
3	5	Heath, . .	4-90	19	18	Sunderland, .	3-31
6	6	Buckland, . .	4-86	23	19	Ashfield, . .	3-30
7	7	Colrain, . .	4-34	18	20	Warwick, . .	3-25
5	8	Deerfield, . .	4-22	21	21	Gill, . .	3-23
10	9	Shutesbury, .	4-20	25	22	Leverett, . .	3-16
9	10	Orange, . .	4-08	22	23	Northfield, .	3-10
13	11	New Salem, .	3-89	24	24	Whately, . .	3-03
12	12	Montague, . .	3-77	8	25	Monroe, . .	2-73
14	13	Rowe, . .	3-75	26	26	Greenfield, .	2-68

HAMPDEN COUNTY.

1	1	GRANVILLE, .	\$.006-38	14	12	Hampden, . .	\$.003-54
2	2	Blandford, . .	5-13	15	13	Westfield, . .	3-41
4	3	Monson, . .	4-95	9	14	Tolland, . .	3-39
3	4	Palmer, . .	4-53	7	15	W. Springfield,	3-36
5	5	Ludlow, . .	4-45	13	16	Agawam, . .	3-28
8	6	Montgomery, .	4-01	17	17	Southwick, . .	3-07
6	7	Longmeadow, .	3-94	18	18	Wales, . .	3-02
10	8	Wilbraham, . .	3-73	19	19	Brimfield, . .	2-81
12	9	Chester, . .	3-70	20	20	Springfield, .	2-70
16	10	Holyoke, . .	3-64	21	21	Russell, . .	2-48
11	11	Chicopee, . .	3-63	22	22	Holland, . .	2-09

HAMPSHIRE COUNTY.

1	1	BELCHERTOWN, .	\$.005-19	5	13	Cummington, .	\$.003-38
2	2	South Hadley, .	5-13	11	14	Chesterfield, .	3-26
4	3	Pelham, . .	4-59	15	15	Prescott, . .	3-26
6	4	Huntington, . .	4-35	13	16	Southampton, .	3-15
3	5	Granby, . .	4-16	16	17	Northampton, .	3-14
14	6	Worthington, .	3-95	19	18	Plainfield, . .	3-13
9	7	Westhampton, .	3-71	17	19	Hadley, . .	3-09
7	8	Williamsburg, .	3-62	18	20	Goshen, . .	2-98
8	9	Middlefield, . .	3-51	20	21	Amherst, . .	2-95
10	10	Easthampton, .	3-47	23	22	Greenwich, . .	2-84
21	11	Enfield, . .	3-43	22	23	Hatfield, . .	2-19
12	12	Ware, . .	3-43				

BOARD OF EDUCATION.

MIDDLESEX COUNTY.

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
1	1	MARLBOROUGH, .	\$.004-94	12	28	Hopkinton, .	\$.003-34
9	2	Westford, .	4-51	40	29	Pepperell, .	3-34
4	3	Natick, .	4-43	36	30	Wilmington, .	3-32
15	4	Holliston, .	4-32	29	31	Shirley, .	3-31
3	5	Stoneham, .	4-29	31	32	Sherborn, .	3-28
2	6	Waltham, .	4-24	33	33	Newton, .	3-23
6	7	Ashby, .	4-07	24	34	Boxborough, .	3-21
7	8	Hudson, .	4-05	34	35	Cambridge, .	3-17
5	9	Wakefield, .	4-00	46	36	Maynard, .	3-16
18	10	Medford, .	3-94	32	37	Watertown, .	3-16
14	11	Reading, .	3-84	37	38	Lexington, .	3-07
8	12	Arlington, .	3-78	41	39	Lowell, .	3-01
10	13	No. Reading, .	3-77	19	40	Tyngsboro', .	2-98
13	14	Ashland, .	3-73	45	41	Dunstable, .	2-74
17	15	Ayer, .	3-73	47	42	Weston, .	2-74
16	16	Woburn, .	3-68	38	43	Bedford, .	2-69
11	17	Concord, .	3-64	48	44	Belmont, .	2-59
20	18	Winchester, .	3-63	43	45	Carlisle, .	2-47
25	19	Melrose, .	3-62	42	46	Dracut, .	2-44
26	20	Townsend, .	3-56	50	47	Billerica, .	2-42
30	21	Malden, .	3-50	44	48	Stow, .	2-42
27	22	Wayland, .	3-45	49	49	Burlington, .	2-32
23	23	Frammingham, .	3-44	51	50	Tewksbury, .	2-17
22	24	Somerville, .	3-43	52	51	Sudbury, .	1-99
28	25	Acton, .	3-40	53	52	Groton, .	1-88
35	26	Littleton, .	3-40	54	53	Lincoln, .	1-57
21	27	Chelmsford, .	3-34	39	54	Everett, .	1-37

NANTUCKET COUNTY.

		NANTUCKET,	\$.001-67
--	--	----------------------	------------

NORFOLK COUNTY.

1	1	HOLBROOK, .	\$.006-19	7	10	Walpole, .	\$.004-32
2	2	Randolph, .	5-47	8	11	Needham, .	4-28
16	3	Dedham, .	5-30	6	12	Hyde Park, .	4-00
9	4	Norwood, .	4-85	11	13	Quincy, .	3-91
10	5	Foxborough, .	4-74	-	14	Avon, .	3-80
4	6	Wrentham, .	4-74	13	15	Bellingham, .	3-71
3	7	Weymouth, .	4-65	15	16	Millis, .	3-71
5	8	Medway, .	4-43	17	17	Norfolk, .	3-55
12	9	Franklin, .	4-41	14	18	Stoughton, .	3-36

SCHOOL RETURNS.

cxix

NORFOLK COUNTY—CONCLUDED.

For 1887-'88, by the State Valuation of 1887.	For 1888-'89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1887-'88, by the State Valuation of 1887.	For 1888-'89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
22	19	Dover, .	\$.003-22	24	24	Cohasset, .	\$.002-21
18	20	Canton, .	3-17	21	25	Wellesley, .	2-11
19	21	Braintree, .	3-10	25	26	Brookline, .	1-27
23	22	Medfield, .	2-96	26	27	Milton, .	1-12
20	23	Sharon, .	2-67				

PLYMOUTH COUNTY.

12	1	LAKEVILLE, .	\$.005-27	13	15	Hanover, .	\$.003-33
3	2	Bridgewater, .	4-58	14	16	Brockton, .	3-32
1	3	Abington, .	4-31	19	17	Halifax, .	3-23
2	4	Rockland, .	4-25	15	18	Plympton, .	3-13
4	5	Wareham, .	4-19	20	19	Scituate, .	2-85
8	6	E. Bridgewater, .	4-04	18	20	Duxbury, .	2-84
17	7	Hanson, .	3-94	22	21	Whitman, .	2-62
5	8	Middleboro', .	3-93	23	22	Marion, .	2-54
7	9	Plymouth, .	3-77	24	23	Carver, .	2-25
10	10	Norwell, .	3-73	21	24	Marshfield, .	2-11
6	11	Rochester, .	3-62	25	25	Kingston, .	2-02
16	12	W. Bridgewater, .	3-61	26	26	Mattapoisett, .	1-42
9	13	Hingham, .	3-50	27	27	Hull, .	0-55
11	14	Pembroke, .	3-34				

SUFFOLK COUNTY.

1	1	CHELSEA, .	\$.003-33	3	3	Boston, .	\$.001-96
2	2	Revere, .	2-76	4	4	Winthrop, .	1-09

WORCESTER COUNTY.

2	1	SPENCER, .	\$.005-80	13	11	Northbridge, .	\$.004-36
1	2	Holden, .	5-58	15	12	Grafton, .	4-34
5	3	Upton, .	5-21	4	13	Dudley, .	4-33
3	4	N. Brookfield, .	4-99	37	14	Sutton, .	4-32
11	5	Brookfield, .	4-92	10	15	W. Boylston, .	4-29
9	6	Westborough, .	4-71	16	16	Westminster, .	4-24
17	7	Warren, .	4-61	19	17	Douglas, .	4-18
6	8	Millbury, .	4-60	50	18	Auburn, .	4-14
8	9	Templeton, .	4-44	12	19	Sterling, .	3-95
7	10	Hopedale, .	4-42	21	20	Shrewsbury, .	3-91

BOARD OF EDUCATION.

WORCESTER COUNTY—CONCLUDED.

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
23	21	W. Brookfield,	\$0.003-83	40	41	Athol, .	\$0.003-21
35	22	Southbridge, .	3-81	42	42	Bolton, .	3-14
26	23	N. Braintree, .	3-78	27	43	Hardwick, .	3-07
28	24	Milford, .	3-76	51	44	Boylston, .	3-06
24	25	Oxford, .	3-76	39	45	Petersham, .	3-06
14	26	Ashburnham, .	3-71	48	46	Mendon, .	3-02
18	27	Clinton, .	3-70	43	47	Hubbardston, .	2-96
29	28	Uxbridge, .	3-69	47	48	Northboro', .	2-96
25	29	Rutland, .	3-68	46	49	Phillipston, .	2-93
22	30	Charlton, .	3-57	53	50	Lunenburg, .	2-90
41	31	Webster, .	3-48	45	51	Winchendon, .	2-86
32	32	Fitchburg, .	3-43	49	52	Oakham, .	2-75
44	33	Southboro', .	3-43	52	53	Dana, .	2-74
20	34	Gardner, .	3-39	54	54	Harvard, .	2-68
30	35	Leicester, .	3-35	56	55	Princeton, .	2-68
36	36	Blackstone, .	3-32	55	56	Royalston, .	2-66
34	37	Worcester, .	3-32	57	57	Berlin, .	2-44
31	38	Barre, .	3-31	59	58	Lancaster, .	2-07
33	39	Sturbridge, .	3-28	58	59	Paxton, .	1-99
38	40	Leominster, .	3-24				

GRADUATED TABLES—SECOND SERIES.

Showing the different Counties in the State, numerically arranged, according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the Year 1888-89.

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	COUNTIES.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	Amount of money raised by taxes for the support of Public Schools.	Income of surplus Revenue and other funds, including the dog tax, used at the option of the town.	TOTALS.	Valuation of 1888.	Amount contributed for board and fuel.
1	1	BARNSTABLE.	\$.003-66	\$62,358 86	\$1,974 43	\$64,333 29	\$17,574,222	—
2	2	Franklin.	3-58	67,931 85	1,366 02	69,297 87	19,330,992	\$31 00
3	3	Worcester.	3-56	583,899 08	6,608 66	590,507 74	164,828,026	390 00
4	4	Berkshire.	3-56	146,863 38	1,602 90	148,466 28	41,732,690	—
5	5	Hampshire.	3-42	93,651 02	3,389 34	97,040 36	28,360,236	17 00
6	6	Middlesex.	3-35	1,104,584 80	7,292 45	1,111,877 25	332,097,256	249 00
7	7	Plymouth.	3-31	180,780 97	5,054 72	185,835 69	56,203,997	—
8	8	Hampden.	3-23	274,518 76	4,439 30	278,958 06	86,309,532	1,132 44
9	9	Bristol.	3-20	384,446 97	5,192 24	389,639 21	121,855,171	—
10	10	Essex.	2-95	596,777 14	9,167 74	605,944 88	205,749,203	40 00
11	11	Norfolk.	2-71	318,531 09	7,748 72	326,279 81	120,473,309	—
12	12	Suffolk.	1-99	1,541,112 08	41,151 37	1,582,263 45	791,944,763	—
13	13	Dukes.	1-93	6,209 00	323 30	6,532 30	3,384,166	19 35
14	14	Nantucket.	1-67	4,940 29	—	4,940 29	2,960,538	—

AGGREGATE FOR THE STATE.

STATE,	\$.002-74	\$5,366,605 29	\$95,311 19	\$5,461,916 48	\$1,992,804,101	\$1,878 79
------------------	-----------	----------------	-------------	----------------	-----------------	------------

GRADUATED TABLES—SECOND SERIES.

Showing the Arrangement of Counties according to their Appropriations, including Voluntary Contributions.

For 1887-88, by the State Valuation of 1887.	For 1888-89, by the State Valuation of 1888.	COUNTIES.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
1	1	BARNSTABLE,	\$.003-66
2	2	Franklin,	3-59
3	3	Worcester,	3-58
4	4	Berkshire,	3-56
5	5	Hampshire,	3-42
6	6	Middlesex,	3-35
7	7	Plymouth,	3-31
8	8	Hampden,	3-25
9	9	Bristol,	3-20
10	10	Essex,	2-95
11	11	Norfolk,	2-71
12	12	Suffolk,	1-99
13	13	Dukes,	1-94
14	14	Nantucket,	1-67
STATE,			\$.002-74

GRADUATED TABLES—THIRD SERIES.

The following Table exhibits the ratio of the average attendance for the year in each town to the whole number of children between 5 and 15, according to the returns.

The ratio is expressed in decimals, continued to four figures, the first two of which are separated from the last two by a point, as only the two former are essential to denote the real per cent. Yet the ratios of many towns are so nearly equal, or the difference is so small a fraction, that the first two decimals with the appropriate mathematical sign appended indicate no distinction. The continuation of the decimals, therefore, is simply to indicate a priority in cases where, without such continuation, the ratios would appear to be precisely similar.

In several cases the ratio of attendance exhibited in the Table is over 100 per cent. These results, supposing the registers to have been properly kept and the returns correctly made, are to be thus explained: The average attendance upon all Public Schools being compared with the whole number of children in the town between 5 and 15, the result may be over 100 per cent., because the attendance of children under 5 and over 15 may more than compensate for the absence of children between those ages. The rank of the towns standing highest in the following Table is in accordance with the returns. As the returns are often incorrect, the rank may be too high in some cases.

GRADUATED TABLES—THIRD SERIES.

[FOR THE STATE.]

In which all the Towns in the State are numerically arranged according to the AVERAGE ATTENDANCE of the Children upon the Public Schools for the Year 1888-89.

TOWNS.				TOWNS.					
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	LONGMEADOW, .	175	209	1.19-43	33	Townsend, .	261	245	.93-87
2	Mendon, .	125	142	1.13-60	34	Needham, .	489	458	.93-66
3	Ashby, .	111	125	1.12-63	35	Williamst'n, .	583	546	.93-65
4	Tyngsboro', .	82	88	1.07-32	36	Littleton, .	156	146	.93-59
5	Rockland, .	818	846	1.03-42	37	Bedford, .	122	114	.93-44
6	Southwick, .	152	157	1.03-29	38	Natick, .	1,683	1,572	.93-40
7	Chelmsford, .	426	438	1.02-82	39	Cohasset, .	345	322	.93-33
8	N. Braintree, .	81	83	1.02-47	40	Erving, .	135	126	.93-33
9	Medway, .	449	459	1.02-23	41	Greenwich, .	60	56	.93-33
10	Weymouth, .	1,739	1,747	1.00-46	42	Hubbardst'n, .	178	166	.93-26
11	Warwick, .	92	92	1.00-00	43	Groton, .	276	255	.92-39
12	Mansfield, .	461	459	.99-57	44	Wellfleet, .	260	240	.92-31
13	Orange, .	659	648	.98-33	45	Dover, .	90	83	.92-22
14	Tolland, .	57	56	.98-25	46	Shelburne, .	203	187	.92-12
15	Middlefield, .	92	90	.97-83	47	Phillipston, .	86	79	.91-86
16	Leominster, .	995	971	.97-59	48	Wayland, .	354	325	.91-81
17	Kingston, .	240	233	.97-08	49	Holliston, .	461	423	.91-76
18	Manchester, .	238	231	.97-06	50	Bradford, .	570	520	.91-23
19	Shrewsbury, .	253	245	.96-84	51	Stow, .	146	133	.91-10
20	Heath, .	107	103	.96-26	52	Whitman, .	663	603	.90-95
21	Swampscott, .	347	334	.96-25	53	Gosnold, .	11	10	.90-91
22	Reading, .	583	560	.96-05	54	Medford, .	1,600	1,454	.90-88
23	Rutland, .	173	166	.95-95	55	Gloucester, .	3,652	3,314	.90-74
24	Amherst, .	587	562	.95-74	56	Acton, .	280	254	.90-71
25	Montgomery, .	43	41	.95-35	57	Stoneham, .	883	800	.90-60
26	Hingham, .	624	591	.94-71	58	Fairhaven, .	412	373	.90-53
27	Ashburnham, .	316	299	.94-62	59	Barre, .	326	294	.90-18
28	Holbrook, .	435	410	.94-25	60	Winchester, .	804	725	.90-17
29	Winchendon, .	699	658	.94-13	61	Falmouth, .	377	339	.89-92
30	Bridgewater, .	499	469	.93-99	62	Provinceto'n, .	810	728	.89-88
31	Barnstable, .	641	602	.93-92	63	Gill, .	118	106	.89-83
32	Essex, .	197	185	.93-91	64	Randolph, .	630	564	.89-52

SCHOOL RETURNS.

CXXV

TOWNS.				TOWNS.				
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
65	Prescott, .	76	68	.89-47	113	Plymouth, .	1,341	1,140 .85-01
66	Danvers, .	1,130	1,009	.89-29	114	Rowe, .	105	89 .84-76
67	Greenfield, .	941	840	.89-27	115	W. St'kbr'ge,	361	306 .84-76
68	Pepperell, .	462	412	.89-18	116	Truro, .	157	133 .84-71
69	So. Hadley, .	677	603	.89-07	117	Dennis, .	492	416 .84-55
70	Hanover, .	309	275	.88-99	118	Walpole, .	426	360 .84-51
71	Melrose, .	1,263	1,122	.88-84	119	Brimfield, .	141	119 .84-40
72	Hopedale, .	213	189	.88-73	120	Oxford, .	407	343 .84-28
73	Granby, .	123	109	.88-62	121	Rockport, .	738	622 .84-28
74	Sandwich, .	345	305	.88-41	122	Hudson, .	768	647 .84-24
75	Carlisle, .	86	76	.88-37	123	Otis, .	107	90 .84-11
76	Hopkinton, .	718	634	.88-30	124	Duxbury, .	293	246 .83-96
77	Norwood, .	555	488	.87-93	125	Blandford, .	168	141 .83-93
78	Framingh'm,	1,620	1,424	.87-90	126	Middleboro',	865	726 .83-93
79	Weston, .	219	192	.87-67	127	Milford, .	1,405	1,179 .83-91
80	Sharon, .	217	190	.87-56	128	Russell, .	124	104 .83-87
81	Medfield, .	200	175	.87-50	129	Grafton, .	901	755 .83-80
82	Upton, .	328	287	.87-50	130	Norfolk, .	178	147 .83-74
83	Abington, .	652	570	.87-42	131	Everett, .	1,415	1,181 .83-46
84	Westford, .	381	333	.87-40	132	Wrentham, .	447	372 .83-22
85	Carver, .	142	124	.87-32	133	Holden, .	498	414 .83-13
86	Harvard, .	134	117	.87-31	134	Mattapoisett,	166	138 .83-13
87	E. Bridgew'r,	438	382	.87-21	135	Easthampt'n,	735	609 .82-86
88	Avon, .	226	197	.87-17	136	Yarmouth, .	245	203 .82-86
89	Attleboro', .	1,105	963	.87-15	137	Newton, .	4,087	3,384 .82-80
90	Boxborough,	62	54	.87-10	138	Halifax, .	110	91 .82-73
91	Tisbury, .	168	146	.86-90	139	Foxborough, .	455	376 .82-64
92	Somerville, .	5,959	5,174	.86-83	140	Cheshire, .	269	222 .82-53
93	Ayer, .	439	381	.86-79	141	Leyden, .	80	66 .82-50
94	W. Springf'd,	913	792	.86-75	142	Bourne, .	256	211 .82-42
95	Harwich, .	428	371	.86-68	143	Belmont, .	318	262 .82-39
96	Warren, .	892	773	.86-66	144	Dunstable, .	68	56 .82-35
97	Merrimac, .	511	442	.86-50	145	Plainfield, .	68	56 .82-35
98	Braintree, .	658	569	.86-47	146	Norwell, .	249	205 .82-33
99	Cummingt'n,	125	108	.86-40	147	Milton, .	630	518 .82-22
100	Easton, .	784	677	.86-35	148	No. Reading, .	145	119 .82-07
101	Concord, .	619	534	.86-27	149	Saugus, .	565	463 .81-95
102	Northboro', .	284	245	.86-27	150	Gt. Barr'gton,	870	712 .81-84
103	Hadley, .	312	269	.86-22	151	Wilmington, .	186	152 .81-72
104	Nahant, .	137	118	.86-13	152	Charlemont, .	191	156 .81-68
105	Ashland, .	438	377	.86-07	153	Brookfield, .	507	414 .81-66
106	Andover, .	982	843	.85-85	154	Hanson, .	196	160 .81-63
107	Dedham, .	1,248	1,070	.85-74	155	Wellesley, .	427	348 .81-50
108	Granville, .	196	168	.85-71	156	N. Attleboro',	1,285	1,044 .81-25
109	Leverett, .	126	108	.85-71	157	W. Brookf'd,	245	199 .81-24
110	Athol, .	785	672	.85-61	158	Spencer, .	1,902	1,545 .81-23
111	Winthrop, .	285	244	.85-61	159	Lincoln, .	165	134 .81-21
112	Waltham, .	2,763	2,351	.85-09	160	Petersham, .	170	138 .81-18

TOWNS.				TOWNS.					
	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
161	Hawley,	90	73	.81-11	209	Florida,	110	85	.77-27
162	Sterling,	201	163	.81-09	210	Rowley,	200	154	.77-00
163	Brockton,	3,748	3,039	.81-08	211	Wareham,	602	463	.76-91
164	Sunderland,	115	93	.80-87	212	Raynham,	224	172	.76-79
165	Oakham,	125	101	.80-80	213	Boxford,	133	102	.76-69
166	W. Newbury,	286	231	.80-77	214	Belchertown,	463	355	.76-67
167	Methuen,	834	673	.80-70	215	Adams,	1,965	1,506	.76-64
168	W. Boylston,	526	424	.80-61	216	Huntington,	234	179	.76-50
169	No Andover,	703	566	.80-51	217	Cambridge,	11727	8,964	.76-44
170	Brookline,	1,867	1,502	.80-45	218	Templeton,	520	397	.76-35
171	Hatfield,	239	192	.80-33	219	Southampt'n,	151	115	.76-16
172	Sudbury,	186	149	.80-11	220	Westport,	453	345	.76-16
173	Marshfield,	217	173	.79-72	221	Lynn,	8,020	6,101	.76-07
174	Ipswich,	640	510	.79-69	222	Wales,	146	111	.76-03
175	Westminster,	277	220	.79-42	223	Brewster,	171	130	.76-02
176	Chilmark,	58	46	.79-31	224	Royalston,	186	141	.75-81
177	Westfield,	1,722	1,363	.79-21	225	Chesterfield,	119	90	.75-63
178	Dana,	115	91	.79-13	226	Blackstone,	1,066	806	.75-61
179	Bellingham,	220	174	.79-09	227	Savoy,	98	74	.75-51
180	Arlington,	993	785	.79-05	228	Ashfield,	163	123	.75-46
181	Beverly,	1,767	1,392	.78-78	229	Conway,	268	202	.75-37
182	Agawam,	457	360	.78-77	230	Pembroke,	207	156	.75-36
183	Lunenburg,	160	126	.78-75	231	Northfield,	259	195	.75-29
184	Westboro',	827	651	.78-72	232	Southboro',	368	277	.75-27
185	Bolton,	131	103	.78-63	233	Sherborn,	190	143	.75-26
186	Swansea,	201	158	.78-61	234	W. Bri'gew'r,	249	187	.75-10
187	Paxton,	84	66	.78-57	235	Wilbraham,	244	183	.75-00
188	Dighton,	303	238	.78-55	236	Rehoboth,	270	202	.74-81
189	Becket,	177	139	.78-53	237	Hull,	87	65	.74-71
190	Rochester,	167	131	.78-44	238	Lee,	668	499	.74-70
191	Leicester,	559	438	.78-35	239	Pittsfield,	3,197	2,386	.74-63
192	Edgartown,	170	133	.78-24	240	Boston,	72590	54134	.74-58
193	Berkley,	156	122	.78-21	241	Tyringham,	90	67	.74-44
194	Lexington,	445	348	.78-20	242	Windsor,	133	99	.74-44
195	Georgetown,	465	363	.78-06	243	Somerset,	383	285	.74-41
196	Hardwick,	436	340	.77-98	244	Northbridge,	822	611	.74-33
197	Marion,	177	138	.77-97	245	Salisbury,	210	156	.74-29
198	Taunton,	4,227	3,293	.77-90	246	Revere,	877	651	.74-23
199	Buckland,	285	222	.77-87	247	Hampden,	139	103	.74-10
200	Berlin,	149	116	.77-85	248	Williamsb'g,	382	283	.74-08
201	Northampt'n,	2,401	1,869	.77-84	249	Princeton,	169	125	.73-96
202	Groveland,	391	304	.77-75	250	Douglas,	398	294	.73-87
203	Shutesbury,	103	80	.77-67	251	Hinsdale,	390	288	.73-85
204	Hyde Park,	1,763	1,365	.77-43	252	Maynard,	526	388	.73-76
205	Millis,	124	96	.77-42	253	Gardner,	1,328	977	.73-57
206	Stockbridge,	341	264	.77-42	254	Holland,	30	22	.73-33
207	Plympton,	84	65	.77-38	255	Orleans,	142	104	.73-24
208	Burlington,	106	82	.77-36	256	Wakefield,	1,375	1,006	.73-16

SCHOOL RETURNS.

cxxvii

	TOWNS.	No. of children 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.		TOWNS.	No. of children 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.
257	Wendell, .	81	59	.72-84	305	Haverhill, .	4,032	2,702	.67-01
258	Peru, .	44	32	.72-73	306	Lynnfield, .	121	81	.66-94
259	Millbury, .	904	657	.72-68	307	Monroe, .	48	32	.66-67
260	Sturbridge, .	396	287	.72-48	308	Hamilton, .	126	83	.65-87
261	Chelsea, .	4,832	3,501	.72-45	309	Uxbridge, .	648	426	.65-74
262	N. Marlboro',	268	194	.72-39	310	Deerfield, .	598	392	.65-55
263	Chatham, .	367	265	.72-21	311	Wenham, .	145	95	.65-52
264	Acushnet, .	179	129	.72-07	312	Hancock, .	113	74	.65-49
265	Quincy, .	3,296	2,368	.71-84	313	Middleton, .	153	100	.65-36
266	Tewksbury, .	275	197	.71-64	314	Watertown, .	1,243	807	.64-92
267	Monterey, .	95	68	.71-58	315	Auburn, .	242	157	.64-88
268	Montague, .	1,402	1,002	.71-47	316	N. Brookfi'd, .	743	478	.64-33
269	Egremont, .	140	100	.71-43	317	Barnardston, .	153	98	.64-05
270	Gay Head, .	28	20	.71-43	318	Norton, .	314	201	.64-01
271	Lancaster, .	321	229	.71-34	319	No. Adams, .	2,918	1,866	.63-95
272	Marlboro', .	2,397	1,709	.71-30	320	Fitchburg, .	3,591	2,283	.63-58
273	New Salem, .	139	99	.71-22	321	Seekonk, .	245	155	.63-27
274	Monson, .	701	498	.71-04	322	Whately, .	158	99	.62-66
275	Scituate, .	490	348	.71-02	323	Clarksburg, .	123	77	.62-60
276	Lenox, .	440	312	.70-91	324	Ware, .	1,483	921	.62-10
277	Marblehead, .	1,459	1,034	.70-87	325	Nantucket, .	560	347	.61-96
278	Ludlow, .	356	252	.70-79	326	Washington, .	96	59	.61-46
279	Dalton, .	485	342	.70-52	327	Lawrence, .	7,923	4,767	.60-17
280	Dartmouth, .	510	358	.70-20	328	Salem, .	5,236	3,140	.59-97
281	Worcester, .	14,326	10,032	.70-03	329	Mt. Wash't'n, .	27	16	.59-26
282	Boylston, .	150	105	.70-00	330	N'w Bedford, .	6,208	3,652	.58-83
283	Goshen, .	60	42	.70-00	331	Eastham, .	75	44	.58-67
284	Enfield, .	153	107	.69-93	332	Stoughton, .	766	447	.58-36
285	Peabody, .	2,168	1,505	.69-42	333	Lowell, .	12,296	7,171	.58-32
286	Dracut, .	343	238	.69-39	334	Sheffield, .	421	241	.57-24
287	Colrain, .	372	258	.69-36	335	Richmond, .	216	122	.56-48
288	Freetown, .	217	150	.69-12	336	Fall River, .	13,029	7,264	.55-75
289	Malden, .	3,260	2,253	.69-11	337	Pelham, .	99	55	.55-56
290	Sandisfield, .	177	122	.68-93	338	N'w Ashford, .	33	18	.54-55
291	Charlton, .	285	196	.68-77	339	Mashpee, .	60	32	.53-33
292	Lakeville, .	150	103	.68-67	340	Canton, .	779	399	.51-22
293	Franklin, .	924	630	.68-18	341	Alford, .	75	38	.50-67
294	Worthingt'n, .	122	83	.68-03	342	Dudley, .	568	282	.49-65
295	Cottage City, .	150	102	.68-00	343	Newburyp'rt, .	2,438	1,204	.49-38
296	Clinton, .	1,960	1,330	.67-86	344	Sutton, .	604	298	.49-34
297	Palmer, .	1,318	889	.67-45	345	Newbury, .	309	151	.48-87
298	Shirley, .	202	136	.67-33	346	Southbridge, .	1,538	742	.48-24
299	Topsfield, .	159	107	.67-30	347	Amesbury, .	1,482	679	.45-82
300	Springfield, .	6,416	4,316	.67-27	348	Holyoke, .	6,402	2,852	.44-55
301	Woburn, .	2,693	1,810	.67-21	349	Westhampt'n, .	110	48	.43-64
302	Lanesboro', .	268	180	.67-16	350	Chicopee, .	2,225	1,060	.43-14
303	Chester, .	225	151	.67-13	351	Webster, .	1,210	399	.32-91
304	Billerica, .	419	281	.67-04					

GRADUATED TABLES—THIRD SERIES.

[COUNTY TABLES.]

In which all the Towns in the Respective Counties in the State are numerically arranged according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the Year 1888-89.

[For an explanation of the principles on which the Tables are constructed, see *ante*, p. cxiii.]

BARNSTABLE COUNTY.

TOWNS.					TOWNS.				
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	BARNSTABLE, .	641	602	.93-92	9	Yarmouth, .	245	203	.82-86
2	Wellfleet, .	260	240	.92-31	10	Bourne, .	256	211	.82-42
3	Falmouth, .	377	339	.89-92	11	Brewster, .	171	130	.76-02
4	Provincetown, .	810	728	.89-88	12	Orleans, .	142	104	.73-24
5	Sandwich, .	345	305	.88-41	13	Chatham, .	367	265	.72-21
6	Harwich, .	428	371	.86-68	14	Eastham, .	75	44	.58-67
7	Truro, .	157	133	.84-71	15	Mashpee, .	60	32	.53-33
8	Dennis, .	492	416	.84-55					

BERKSHIRE COUNTY.

1	WILLIAMSTOWN, .	583	546	.93-65	17	N.Marlboro',	268	194	.72-39
2	W.Stockb'ge,	361	306	.84-76	18	Monterey, .	95	68	.71-58
3	Otis, .	107	90	.84-11	19	Egremont, .	140	100	.71-43
4	Cheshire, .	269	222	.82-53	20	Lenox, .	440	312	.70-91
5	G.Barringt'n,	870	712	.81-84	21	Dalton, .	485	342	.70-52
6	Becket, .	177	139	.78-53	22	Sandisfield, .	177	122	.68-93
7	Stockbridge,	341	264	.77-42	23	Lanesboro', .	268	180	.67-16
8	Florida, .	110	85	.77-27	24	Hancock, .	113	74	.65-49
9	Adams, .	1,965	1,506	.76-64	25	No. Adams, .	2,918	1,866	.63-95
10	Savoy, .	98	74	.75-51	26	Clarksburg, .	123	77	.62-60
11	Lee, .	668	499	.74-70	27	Washington,	96	59	.61-46
12	Pittsfield, .	3,197	2,386	.74-63	28	Mt.Wash'g'n,	27	16	.59-26
13	Tyringham, .	90	67	.74-44	29	Sheffield, .	421	241	.57-24
14	Windsor, .	133	99	.74-44	30	Richmond, .	216	122	.56-48
15	Hinsdale, .	390	288	.73-85	31	NewAshford,	33	18	.54-55
16	Peru, .	44	32	.72-73	32	Alford, .	75	38	.50-67

SCHOOL RETURNS.

cxxx

BRISTOL COUNTY.

TOWNS.					TOWNS.				
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	MANSFIELD, .	461	459	.99-57	11	Westport, .	453	345	.76-16
2	Fairhaven, .	412	373	.90-53	12	Rehoboth, .	270	202	.74-81
3	Attleboro', .	1,105	963	.87-15	13	Somerset, .	383	285	.74-41
4	Easton, .	784	677	.86-35	14	Acushnet, .	179	129	.72-07
5	N.Attleboro', .	1,285	1,044	.81-25	15	Dartmouth, .	510	358	.70-20
6	Swansea, .	201	158	.78-61	16	Freetown, .	217	150	.69-12
7	Dighton, .	303	238	.78-55	17	Norton, .	314	201	.64-01
8	Berkley, .	156	122	.78-21	18	Seekonk, .	245	155	.63-27
9	Taunton, .	4,227	3,293	.77-90	19	New Bedford, .	6,208	3,652	.58-83
10	Raynham, .	224	172	.76-79	20	Fall River, .	13,029	7,264	.55-75

DUKES COUNTY.

1	GOSNOLD, .	11	10	.90-91	4	Edgartown, .	170	133	.78-24
2	Tisbury, .	168	146	.86-90	5	Gay Head, .	28	20	.71-43
3	Chilmark, .	58	46	.79-31	6	Cottage City, .	150	102	.68-00

ESSEX COUNTY.

1	MANCHESTER, .	238	231	.97-06	19	Rowley, .	200	154	.77-00
2	Swampscott, .	347	334	.96-25	20	Boxford, .	133	102	.76-69
3	Essex, .	197	185	.93-91	21	Lynn, .	8,020	6,101	.76-07
4	Bradford, .	570	520	.91-23	22	Salisbury, .	210	156	.74-29
5	Gloucester, .	3,652	3,314	.90-74	23	Marblehead, .	1,459	1,034	.70-87
6	Danvers, .	1,130	1,009	.89-29	24	Peabody, .	2,168	1,505	.69-42
7	Merrimac, .	511	442	.86-50	25	Topsfield, .	159	107	.67-30
8	Nahant, .	137	118	.86-13	26	Haverhill, .	4,032	2,702	.67-01
9	Andover, .	982	843	.85-85	27	Lynnfield, .	121	81	.66-94
10	Rockport, .	738	622	.84-28	28	Hamilton, .	126	83	.65-87
11	Saugus, .	565	463	.81-95	29	Wenham, .	145	95	.65-52
12	W.Newbury, .	286	231	.80-77	30	Middleton, .	153	100	.65-36
13	Methuen, .	834	673	.80-70	31	Lawrence, .	7,923	4,767	.60-17
14	No.Andover, .	703	566	.80-51	32	Salem, .	5,236	3,140	.59-97
15	Ipswich, .	640	510	.79-69	33	Newburyp'rt, .	2,438	1,204	.49-38
16	Beverly, .	1,767	1,392	.78-78	34	Newbury, .	309	151	.48-87
17	Georgetown, .	465	363	.78-06	35	Amesbury, .	1,482	679	.45-82
18	Groveland, .	391	304	.77-75					

BOARD OF EDUCATION.

FRANKLIN COUNTY.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	WARWICK, .	92	92	1.00-00	14	Buckland, .	285	222	.77-89
2	Orange, .	659	648	.98-33	15	Shutesbury, .	103	80	.77-67
3	Heath, .	107	103	.96-26	16	Ashfield, .	163	123	.75-46
4	Erving, .	135	126	.93-33	17	Conway, .	268	202	.75-37
5	Shelburne, .	203	187	.92-12	18	Northfield, .	259	195	.75-29
6	Gill, .	118	106	.89-83	19	Wendell, .	81	59	.72-84
7	Greenfield, .	941	840	.89-27	20	Montague, .	1,402	1,002	.71-47
8	Leverett, .	126	108	.85-71	21	New Salem, .	139	99	.71-22
9	Rowe, .	105	89	.84-76	22	Colrain, .	372	258	.69-36
10	Leyden, .	80	66	.82-50	23	Monroe, .	48	32	.66-67
11	Charlemont, .	191	156	.81-68	24	Deerfield, .	598	392	.65-55
12	Hawley, .	90	73	.81-11	25	Bernardston, .	153	98	.64-05
13	Sunderland, .	115	93	.80-87	26	Whately, .	158	99	.62-66

HAMPDEN COUNTY.

1	LONGMEADOW, .	175	209	1.19-43	12	Wales, .	146	111	.76-03
2	Southwick, .	152	157	1.03-29	13	Wilbraham, .	244	183	.75-00
3	Tolland, .	57	56	.98-25	14	Hampden, .	139	103	.74-10
4	Montgomery, .	43	41	.95-35	15	Holland, .	30	22	.73-33
5	W.Springf'd, .	913	792	.86-75	16	Monson, .	701	498	.71-04
6	Granville, .	196	168	.85-71	17	Ludlow, .	356	252	.70-79
7	Brimfield, .	141	119	.84-40	18	Palmer, .	1,318	889	.67-45
8	Blandford, .	168	141	.83-93	19	Springfield, .	6,416	4,316	.67-27
9	Russell, .	124	104	.83-87	20	Chester, .	225	151	.67-13
10	Westfield, .	1,722	1,363	.79-21	21	Holyoke, .	6,402	2,852	.44-55
11	Agawam, .	457	360	.78-77	22	Chicopee, .	2,225	1,060	.43-14

HAMPSHIRE COUNTY.

1	MIDDLEFIELD, .	92	90	.97-83	13	Belchertown, .	463	355	.76-67
2	Amherst, .	587	562	.95-74	14	Huntington, .	234	179	.76-50
3	Greenwich, .	60	56	.93-33	15	Southampt'n, .	151	115	.76-16
4	Prescott, .	76	68	.89-47	16	Chesterfield, .	119	90	.75-63
5	So. Hadley, .	677	603	.89-07	17	Williamsb'rg, .	382	283	.74-08
6	Granby, .	123	109	.88-62	18	Goshen, .	60	42	.70-00
7	Cummington, .	125	108	.86-40	19	Enfield, .	153	107	.69-93
8	Hadley, .	312	269	.86-22	20	Worthington, .	122	83	.68-03
9	Easthampton, .	735	609	.82-86	21	Ware, .	1,483	921	.62-10
10	Plainfield, .	68	56	.82-35	22	Pelham, .	99	55	.55-56
11	Hatfield, .	239	192	.80-33	23	Westhampt'n, .	110	48	.43-64
12	Northampt'n, .	2,401	1,869	.77-84					

SCHOOL RETURNS.

cxxxii

MIDDLESEX COUNTY.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	ASHBY, .	111	125	1.12-63	28	Ashland, .	438	377	.86-07
2	Tyngsboro', .	82	88	1.07-32	29	Waltham, .	2,763	2,351	.85-09
3	Chelmsford, .	426	438	1.02-82	30	Hudson, .	768	647	.84-24
4	Reading, .	583	560	.96-05	31	Everett, .	1,415	1,181	.83-46
5	Townsend, .	261	245	.93-87	32	Newton, .	4,087	3,384	.82-80
6	Littleton, .	156	146	.93-59	33	Belmont, .	318	262	.82-39
7	Bedford, .	122	114	.93-44	34	Dunstable, .	68	56	.82-35
8	Natick, .	1,683	1,572	.93-40	35	No. Reading, .	145	119	.82-07
9	Groton, .	276	255	.92-39	36	Wilmington, .	186	152	.81-72
10	Wayland, .	354	325	.91-81	37	Lincoln, .	165	134	.81-21
11	Holliston, .	461	423	.91-76	38	Sudbury, .	186	149	.80-11
12	Stow, .	146	133	.91-10	39	Arlington, .	993	785	.79-05
13	Medford, .	1,600	1,454	.90-88	40	Lexington, .	445	348	.78-20
14	Acton, .	280	254	.90-71	41	Burlington, .	106	82	.77-36
15	Stoneham, .	883	800	.90-60	42	Cambridge, .	11,727	8,964	.76-44
16	Winchester, .	804	725	.90-17	43	Sherborn, .	190	143	.75-26
17	Pepperell, .	462	412	.89-18	44	Maynard, .	526	388	.73-76
18	Melrose, .	1,263	1,122	.88-84	45	Wakefield, .	1,375	1,006	.73-16
19	Carlisle, .	86	76	.88-37	46	Tewksbury, .	275	197	.71-64
20	Hopkinton, .	718	634	.88-30	47	Marlboro', .	2,397	1,709	.71-30
21	Framingham, .	1,620	1,424	.87-90	48	Dracut, .	343	238	.69-39
22	Weston, .	219	192	.87-67	49	Malden, .	3,260	2,253	.69-11
23	Westford, .	381	333	.87-40	50	Shirley, .	202	136	.67-33
24	Boxborough, .	62	54	.87-10	51	Woburn, .	2,693	1,810	.67-21
25	Somerville, .	5,959	5,174	.86-83	52	Billerica, .	419	281	.67-04
26	Ayer, .	439	381	.86-79	53	Watertown, .	1,243	807	.64-92
27	Concord, .	619	534	.86-27	54	Lowell, .	12,296	7,171	.58-32

NANTUCKET COUNTY.

NANTUCKET,	560	347	.61-96
----------------------	-----	-----	--------

NORFOLK COUNTY.

1	MEDWAY, .	449	459	1.02-23	8	Norwood, .	555	488	.87-93
2	Weymouth, .	1,739	1,747	1.00-46	9	Sharon, .	217	190	.87-56
3	Holbrook, .	435	410	.94-25	10	Medfield, .	200	175	.87-50
4	Needham, .	489	458	.93-66	11	Avon, .	226	197	.87-17
5	Cohasset, .	345	322	.93-33	12	Braintree, .	658	569	.86-47
6	Dover, .	90	83	.92-22	13	Dedham, .	1,248	1,070	.85-74
7	Randolph, .	630	564	.89-52	14	Walpole, .	426	360	.81-51

NORFOLK COUNTY — CONCLUDED.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
15	Norfolk, .	178	147	.83-74	22	Hyde Park, .	1,763	1,365	.77-43
16	Wrentham, .	447	372	.83-22	23	Millis, .	124	96	.77-42
17	Foxborough, .	455	376	.82-64	24	Quincy, .	3,296	2,368	.71-84
18	Milton, .	630	518	.82-22	25	Franklin, .	924	630	.68-18
19	Wellesley, .	427	348	.81-50	26	Stoughton, .	766	447	.58-36
20	Brookline, .	1,867	1,502	.80-45	27	Canton, .	779	399	.51-22
21	Bellingham, .	220	174	.79-09					

PLYMOUTH COUNTY.

1	ROCKLAND, .	818	846	1.03-42	15	Norwell, .	249	205	.82-33
2	Kingston, .	240	233	.97-08	16	Hanson, .	196	160	.81-63
3	Hingham, .	624	591	.94-71	17	Brockton, .	3,748	3,039	.81-08
4	Bridgewater, .	499	469	.93-99	18	Marshfield, .	217	173	.79-72
5	Whitman, .	663	603	.90-95	19	Rochester, .	167	131	.78-44
6	Hanover, .	309	275	.88-99	20	Marion, .	177	138	.77-97
7	Abington, .	652	570	.87-42	21	Plympton, .	84	65	.77-38
8	Carver, .	142	124	.87-32	22	Wareham, .	602	463	.76-91
9	E. Bridgew'r, .	438	382	.87-21	23	Pembroke, .	207	156	.75-36
10	Plymouth, .	1,341	1,140	.85-01	24	W. Bridgew'r, .	249	187	.75-10
11	Duxbury, .	293	246	.83-96	25	Hull, .	87	65	.74-71
12	Middleboro', .	865	726	.83-93	26	Scituate, .	490	348	.71-02
13	Mattapoisett, .	166	138	.83-13	27	Lakeville, .	150	103	.68-67
14	Halifax, .	110	91	.82-73					

SUFFOLK COUNTY.

1	WINTHROP, .	285	244	.85-61	3	Revere, .	877	651	.74-23
2	Boston, .	72,590	54,134	.74-58	4	Chelsea, .	4,832	3,501	.72-45

WORCESTER COUNTY.

1	MENDON, .	125	142	1.13-60	7	Winchendon, .	699	658	.94-13
2	N. Braintree, .	81	83	1.02-47	8	Hubbardston, .	178	166	.93-26
3	Leominster, .	995	971	.97-59	9	Phillipston, .	86	79	.91-86
4	Shrewsbury, .	253	245	.96-84	10	Barre, .	326	294	.90-18
5	Rutland, .	173	166	.95-95	11	Hopedale, .	213	189	.88-73
6	Ashburnham, .	316	299	.94-62	12	Upton, .	328	287	.87-50

SCHOOL RETURNS.

cxxxiii

WORCESTER COUNTY — CONCLUDED.

TOWNS.					TOWNS.				
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
13	Harvard, .	134	117	.87-31	37	Templeton, .	520	397	.76-35
14	Warren, .	892	773	.86-66	38	Royalston, .	186	141	.75-81
15	Northboro',	284	245	.86-27	39	Blackstone, .	1,066	806	.75-61
16	Athol, .	785	672	.85-61	40	Southboro', .	368	277	.75-27
17	Oxford, .	407	343	.84-28	41	Northbridge,	822	611	.74-33
18	Milford, .	1,405	1,179	.83-91	42	Princeton, .	169	125	.73-96
19	Grafton, .	901	755	.83-80	43	Douglas, .	398	294	.73-87
20	Holden, .	498	414	.83-13	44	Gardner, .	1,328	977	.73-57
21	Brookfield, .	507	414	.81-66	45	Millbury, .	904	657	.72-68
22	W. Br'kfield,	245	199	.81-24	46	Sturbridge, .	396	287	.72-48
23	Spencer, .	1,902	1,545	.81-23	47	Lancaster, .	321	229	.71-34
24	Petersham, .	170	138	.81-18	48	Worcester, .	14,326	10,032	.70-03
25	Sterling, .	201	163	.81-09	49	Boylston, .	150	105	.70-00
26	Oakham, .	125	101	.80-80	50	Charlton, .	285	196	.68-77
27	W. Boylston,	526	424	.80-61	51	Clinton, .	1,960	1,330	.67-86
28	Westminster,	277	220	.79-42	52	Uxbridge, .	648	426	.65-74
29	Dana, .	115	91	.79-13	53	Auburn, .	242	157	.64-88
30	Lunenburg, .	160	126	.78-75	54	N. Br'kfield,	743	478	.64-33
31	Westboro', .	827	651	.78-72	55	Fitchburg, .	3,591	2,283	.63-58
32	Bolton, .	131	103	.78-63	56	Dudley, .	568	282	.49-65
33	Paxton, .	84	66	.78-57	57	Sutton, .	604	298	.49-34
34	Leicester, .	559	438	.78-35	58	Southbridge,	1,538	742	.48-24
35	Hardwick, .	436	340	.77-98	59	Webster, .	1,210	399	.32-91
36	Berlin, .	149	116	.77-85					

TABLE in which all the Counties are numerically arranged, according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the Year 1888-89.

1887-88.	1888-89.	COUNTIES.	Ratio of Attendance.
1	1	BARNSTABLE, . . . . .	.85-43
3	2	Plymouth, . . . . .	.84-65
5	3	Norfolk, . . . . .	.80-86
4	4	Franklin, . . . . .	.79-32
2	5	Dukes, . . . . .	.78-12
6	6	Hampshire, . . . . .	.77-43
7	7	Middlesex, . . . . .	.76-89
8	8	Suffolk, . . . . .	.74-48
9	9	Berkshire, . . . . .	.72-85
10	10	Worcester, . . . . .	.72-63
11	11	Essex, . . . . .	.70-73
12	12	Bristol, . . . . .	.65-36
14	13	Hampden, . . . . .	.62-40
13	14	Nantucket, . . . . .	.61-96
STATE, . . . . .			.73-64

I N D E X.



INDEX.

	PAGE
Absentees from school,	234
Abstract of school returns for 1888-9 (<i>see</i> Statistics),	i-cxxxiv
Academies, statistics of, by counties,	iv-lxxvii
Admission to Salem Normal School,	147
Agents of Board of Education, reference to,	15
Reference of Secretary to, with districts assigned,	189
Aid for normal school pupils,	225
American Asylum at Hartford, deaf-mutes may be instructed in, at public expense,	69
Statistics of,	80
American Institute of Instruction, reference of Secretary to,	89
Analysis of returns of school committees,	53-69
Animals, study of, in German schools,	282
Apparatus, German schools, use in,	268
Appendixes, reports of agents of Board,	229
Apprenticeship in Worcester Normal School,	166
Appropriations for normal schools,	222, 224
Agents of Board, for,	225
Per child, by cities and towns of State,	lxxxi
By cities and towns of counties,	cxxi
By counties,	cviii
Rate of, for public schools, based on taxable property,	cxi-cxxii
Teachers' Institutes, for,	226
Arithmetic, teaching of, in German schools,	284
Number work and, G. T. Fletcher upon,	309
Art School, Normal, report of visitors to,	44
History of, in Secretary's report,	169
Attendance upon schools of children of all ages,	53
Average per cent. of,	53
Barnstable County, improvement in,	241
Children under 5 years and over 15 years of age,	55
Compulsory, revision of law concerning,	346
High schools, upon,	64
Increase of, in ten years,	64
Irregularity of, in evening schools,	12
Parochial schools, affected by,	55, 58
Per cent. of, increased,	57
Plymouth County, improvement in,	248
Rank of counties in State,	cxxxiv
Of towns in county,	cxxviii
Of towns in State,	cxxiv
Report of G. T. Fletcher, agent, upon,	303
Special schools, upon,	69
Statistics from committees, concerning,	ii-cxxxiv
Superintendents, duties concerning,	202

	PAGE
Bailey, H. T., agent of Board, report on drawing in public schools,	317
Course of lessons in drawing, for public schools,	337
Drawing a disciplinary study,	332
Exhibits of, in cities and towns,	323
Institutes, taught in, by agent,	325
Materials to be used,	328
Object drawing, how place object,	329
Supervisors of, table giving names of,	319
Work of agent for 1889,	322
Barnstable County schools, report of G. A. Walton, agent, upon,	233
Bartlett, George H., principal of Normal Art School,	172
Barre-Westfield Normal School,	113
Berkshire, Franklin and Hampshire counties, work of G. T. Fletcher, agent,	303
Bigelow, George N., principal of Framingham Normal School,	103
Blind, Perkins Institution for,	80
Boarding Hall at Westfield Normal School,	128
Board of Education, attacks upon,	98, 114
Annual report of, for 1889,	9
Financial statement of,	222
Incidental expenses of,	226
Books, free text, success of law for,	14
Cost of, and supplies,	vi-lxxvi
Expenditures increase on account of,	68
Superintendents to select,	201
Use of, in Worcester Normal School,	162
Boyden, Albert G., principal, Bridgewater Normal School,	133
Bridgewater Normal School :	
History of semi-centennial,	130
Boyden, Albert G., principal of,	133
Conant, Marshall, principal of,	132
Design of school,	135
Discipline, character of,	138
Examination, and graduation from,	139
Graduates, success of,	141
Laboratories, completeness of,	139
Organization of school,	135
Students, number of,	140
Teaching, principles and methods of,	136, 137
Teachers, principals and assistants,	141
Tillinghast, Nicholas, first principal,	131
Work of, means for doing,	139
Visitors to, report of, for 1889,	18
Building and grounds of Worcester Normal School,	154
Buildings, new, for normal schools,	10, 216
Carter, James G., reference to, in history of normal schools,	88
Centennial, semi, of Framingham Normal School,	38, 91
Of Westfield Normal School,	38, 113
Changes of teachers, frequent in Berkshire County,	236
Children, attendance at school, law of 1889, concerning,	346
Changes in number of, attending school,	53
Employment of, law of 1889, concerning,	346
Study of, in Worcester Normal School,	163
Transportation of, to school, expense for,	68
Truant schools needed for,	217, 297
Clarke Institution for Deaf-mutes at Northampton,	69, 73
Compulsory attendance, revision of law for,	346
Enforcement of, needs State official,	235
Committee, teachers and superintendent, relations of,	203

	PAGE
Conant, Marshall, principal, Bridgewater Normal School,	132
Concord, consolidation of schools in,	240, 259
Consolidation of schools needed in Barnstable and Plymouth counties,	240, 256
Contributions, voluntary, for support of schools,	viii-lxxvii
County truant schools, demand for,	235, 297
Counties provided with,	13
Course of studies, laws of mind, basis for,	211
Drawing, outline course for,	335
German schools, furnished by minister of instruction,	269
High school, course in,	273
Normal school, course in,	271
Grammar schools, Secretary upon,	206
Normal Art School, course in,	170
Salem Normal School,	147
Counties and towns, statistics of,	i-cxxxiv
Rank of, in State,	cxxxiv
Truant schools to be established, on petition from three towns,	217
Crocker, Lucretia, assistant teacher in Framingham Normal School,	108
Crosby, Prof. Alpheus, principal, Salem Normal School,	145
Davis, Rev. Emerson, principal, Westfield Normal School,	115
Day schools, evening, supplementary to,	66
Deaf-mutes, American Asylum for, at Hartford,	69
Clarke Institution for,	69, 73
Horace Mann School for, at Boston,	76
Development, grades of, in grammar school course of studies,	208
Dickinson, John W., principal, Westfield Normal School,	120
Discipline, objectionable methods in German schools,	280
District supervision, under law of 1888,	193
Arrangement of districts for, in Barnstable County,	238
Expense of, to towns of a group,	239
Provisions of, in aid of towns,	192
Results of, generally satisfactory,	299, 313
Towns voting for, in Hampden and Worcester counties,	299
In Plymouth County,	251
In western counties,	312
Union of towns for, in 1889, Secretary's report upon,	195
Drawing, report of H. T. Bailey, agent, upon (<i>see</i> Bailey, H. T.),	317
Dukes County schools, report of G. H. Martin upon,	247
Edson, A. W., agent of Board, report of,	287
Committees, school, faithful,	298
Hampden and Worcester counties, schools of,	290
Institutes held in,	296
Towns visited, list of,	289
Improvements in schools,	295
School committees, reports of,	290-295
Superintendents, skilled, needed,	299
Supervision by, arguments for,	299
Teachers, too many inexperienced,	295
Truants, need of county schools for,	297
Worcester County schools, and Hampden,	291
Education, annual report of Board of,	9
Edwards, Richard, principal of Salem Normal School,	144
Elements of physical science,	217
In German schools,	275
Evening schools, report of Board upon,	12
Attendance upon, irregularity of,	12
Report of Secretary upon,	65
Statistics of,	lxxviii

	PAGE
Examination of teachers, Secretary upon,	199
Method of, in Germany,	263
Expenditures for schools increased by free text books,	68
Expenses of Board,	226
Female teachers, wages of,	62
Financial statement of Treasurer of Board,	222
Fletcher, G. T., agent of Board, report of,	301
Arithmetic and numbers, work in,	309
Attendance, good results in,	306
Conditions in schools, improvement in,	305
Furnishings for school-rooms,	305
Geography and history, teaching of,	309
Instruction, methods of,	306
Language teaching, improvement in,	308
Out-buildings, improvement in,	306
Reading, methods of,	307
Schools poor, from poor teaching,	307
Work in, methods of,	304
Spelling, methods advised,	308
Superintendents, law of 1888,	312
Districts formed for,	312
Results of, satisfactory,	313
Towns voting for union,	312
Teachers, selection and examination of,	310
Examination of, law for, disregarded,	311
Temperance teaching, improvement in,	309
Towns, schools visited in,	303
Framingham (Lexington) Normal School :	
History of, by Mrs. E. N. L. Walton,	91
Assistant teachers in,	107, 111
Attacks upon Board and school,	98
Bigelow, George N., principal of,	103
Crocker, Lucretia, assistant in,	108
Dwight, Edmund, offer of,	90
Establishment of, at Lexington,	90
Framingham, removal to, from West Newton,	103
Graduates, eminent, of,	109
Hyde, Ellen, principal of,	105
Johnson, Annie, principal of,	104
May, Rev. Samuel J., principal of,	97
Mann, Horace, reference to,	92
Peirce, Rev. Cyrus, first principal of,	92
Practice, or model school,	96
Quincy, Josiah, Jr., gift of, for building,	92
Resolutions of pupils, defending school,	100
Service of graduates, term of,	109
Stearns, Rev. Eben S., principal of,	102
Visitors to, distinguished devotion of,	109
West Newton, removal of school to,	98
Visitors to, report of, for 1889,	26
Free public school, necessity for,	219
Free text-books, reference of Board to,	14
Expenses of schools, increased for,	68
Fuchs, Otto, principal Normal Art School,	172
Fund, State school, income of,	82
Public schools of towns, distribution of, for,	viii-lxxvi
Reference books and apparatus, expended for,	viii

	PAGE
Funds, local, amount of,	viii-lxxvii
Geography in German schools,	284
Western counties of Massachusetts, in,	309
Germany, normal schools originated in,	83
Supervision of schools in,	266
Teachers of, professional,	265
Text-books few in schools of,	268
Girls in German schools, education restricted,	275
Graduated tables of appropriations for schools,	lxxxvi
Of attendance,	cxxiv
Graduates of normal schools, number of,	10
Eminent, of Framingham Normal School,	109
Grammar schools, course of studies for,	206
Greenough, James C., principal of Westfield Normal School,	126
Hagar, D. B., principal Salem Normal School,	145
Hall, Rev. S. R., early established training school for teachers,	87
Hampden County, schools of, A. W. Edson upon,	289
Worcester County, schools of, A. W. Edson upon,	289
High schools, reference of Board to,	12
Attendance upon, table showing increased,	64
Increase in number and condition of,	52, 64
German, under different names,	272
History of normal schools, Secretary upon,	83
Of Bridgewater Normal School,	130
Of Framingham (Lexington) Normal School,	91
Of Normal Art School,	169
Of Salem Normal School,	143
Of Westfield (Barre) Normal School,	113
Of Worcester Normal School,	152
Home talent, too much inclination to employ,	295
Horace Mann School for Deaf-mutes,	76
Hyde, Ellen, principal of Framingham Normal School,	105
Improvement in schools of Barnstable County, superficial,	241
Of Hampden and Worcester counties, agent's report of,	289
Of Plymouth County, Dukes and Nantucket,	247
Industrial education, Board to report upon,	14
Progress of, in German schools,	270
Inspection of schools in Barnstable County, report of George A. Walton, agent,	233
Institutes, Teachers' (<i>see</i> Teachers' Institutes).	
Institution, Perkins, for the Blind,	80
Institutions, reformatory, of State,	lxxix
Johnson, Annie E., principal of Framingham Normal School,	104
Kindergarten in Perkins Institution, success of,	81
Knowledge and information, difference of,	206
Some which all should possess,	220
Laboratories, physical, etc., at Bridgewater Normal School,	139
Language teaching in grammar schools,	210
Plymouth County, improvement in,	254
Latin and Greek, thorough teaching of, in German schools,	274
Laws relating to schools, enacted in 1889,	346
Attendance of children at school,	346
Employment of children, etc.,	346
Truant officer to arrest without warrant to take to school,	346
Lexington-Framingham Normal School, history of, by Mrs. E. N. L. Walton,	91
Libraries, cabinets and laboratories, Salem Normal School,	149
Mann, Horace, first Secretary of Board,	92
May, Rev. Samuel J., principal Lexington Normal School,	97

	PAGE
Marking of pupils not practised in German schools,	279
Martin, George H., agent of Board, report of,	245
Consolidation of schools, need of,	256
Language teaching, improvement in,	254
Nature studies recommended,	254
Plan for, by Plymouth County Teachers' Association,	255
Plymouth, Dukes, Nantucket counties, improvements in teaching,	247
Reading, criticisms upon,	252
Schools, visits to, in Dukes, Plymouth and Nantucket counties,	247
Attendance upon, increased,	248
Number of, increased,	248
Organization of, improved,	249
Supervision of schools, gain in,	250
Results of, reported,	251
Teachers, permanency of, greater,	249
Membership of public schools, statistics of,	ii-lxxiv
Annual increase in,	54
Method of teaching in Bridgewater Normal School,	137
Methods of teaching, duties of superintendents concerning,	201
Middlesex County, schools of Concord, consolidation of,	241
Mixed schools in Germany, plans for,	276
Programmes for,	277
Nantucket, schools of, report of George H. Martin upon,	247
Nature studies, recommended,	254
German schools, course in,	282
Plan for, prepared by Plymouth County Teachers' Association,	255
Newman, Prof. Samuel P., principal, Barre Normal School,	113
Normal schools, report of Board upon,	9
Advocates of, early,	88
American Institute of Instruction, effort toward,	89
Basis of work of,	215
Brooks, Rev. Charles, advocate for,	87
Board of Education, efforts to secure,	89
Buildings, new, for normal schools,	216
Carter, James G., "father of normal school,"	89
Financial statement of, by Treasurer,	222
France, established in 1681,	84
German, course of studies in,	271
Number of, in,	270
Hall, Rev. S. R., seminary for training teachers, kept by,	87
History of, Secretary's report upon,	83-176
Barre-Westfield,	113
Bridgewater,	130
Lexington-Framingham,	90
Salem,	143
State Normal Art,	169
Worcester,	152
Massachusetts, establishment of, in 1838,	90
Membership of, present,	9
Increase in, table of, for ten years,	62
Opposition to, in early years,	89, 114
Resolutions of pupils at West Newton, concerning,	100
Organization of, principles for,	215
Practice school, necessary accompaniment to,	215
Professional training in,	215
Secretary's report upon,	83-176, 215
Statistics of,	216

Normal schools, report of Board upon — <i>Concluded.</i>	PAGE
Support of, State appropriation for,	222
Visitors to, reports of schools:	
Bridgewater,	18
Framingham,	26
Salem,	31
State Normal Art,	44
Westfield,	33
Worcester,	40
Objective work in German schools,	279
Observing powers of child, first to be cultivated,	217
Parochial schools, probable number of pupils in,	58
Physical science, elements of,	217
Physical training, new movement for,	218
Pierce, Rev. Cyrus, first principal of State Normal School,	92
Plymouth County, improvement of schools in,	247
Nature, studies in, plan formed by Teachers' Association,	255
Practice schools, needed for all normal schools,	215
Prince, John T., agent of Board, report of,	261
Animals, lessons on, in German schools,	282
Apparatus in German schools, abundance of,	268
Arithmetic in Leipsic, grades of work in,	282
Buildings, school, generally poor,	267
Discipline, objectionable methods of,	280
Elementary schools, number of recitations,	275
Religion, a prominent topic in,	276
Examinations of teachers, severe,	263
Geography, fifth year in Jena,	284
German schools, report of, in brief,	263
Comparison of, with American,	264
Girls' schooling, restriction of,	275
High schools, under different names,	272
Course of studies for, in German schools,	273
Latin and Greek, well taught in,	274
Industrial and science schools,	270
Marking of pupils, not in vogue,	279
Mixed schools, plans and programmes for,	276, 277
Normal schools, number of, in Germany,	270
Course of studies for,	271
Preparation for admission to,	272
Objects and pictures in schools,	279
Reading in people's schools,	280
In normal schools, plan for,	281
School officers, powers and duties of,	264
School, kinds, public and private,	269
Supervision, effectiveness of,	265
Terms and sessions of,	270
Text-books, few in,	268
Studies, directed by minister of instruction,	269
Teacher in Germany, a professional,	265
Definite aim of,	278
Teaching, general characteristics of,	278
Private schools, report of Board upon,	10
Increase of, to be deprecated,	11
Professional training needed for all teachers,	215, 236
Programmes for German schools,	277
Public schools and private, increased attendance upon,	10, 241

Public schools and private, increased attendance upon — <i>Concluded.</i>	PAGE
Aim of, development,	218
Ends to be attained by,	220
Expenditures for,	52
Life of State dependent upon,	220
Maintained for good of State,	11
Number of, in State,	51
Qualifications of graduates of Worcester Normal School,	158
Of superintendents of schools,	197
Quincy, Josiah, Jr., gift of, for normal school building,	92
Reading, criticisms on, in Plymouth County,	252
In people's and normal schools of Germany,	280, 281
Religion, a prominent topic in German schools,	276
Report of Board of Education,	9
Agents of Board, work of,	15
Evening schools, irregularity of attendance upon,	12
Free text-book law, results of,	14
High school, fit in, for practical life,	12
Industrial education, Board to report upon,	14
Normal schools, number and location of,	10
Private schools, increase of, deprecated,	11
Public schools, attendance upon, compulsory,	10
Returns of school committees,	9
Secretary of Board, commended,	15
Supervision under laws of 1873 and 1888,	13
Teachers' Institutes, good effects of,	13
Report of Secretary of Board (<i>see</i> Secretary),	49
Reports of agents of Board :	
Bailey, Henry T.,	317
Edson, A. W.,	289
Fletcher, G. T.,	203
Martin, George H.,	245
Prince, John T.,	261
Walton, George A.,	231
Reports of visitors to normal schools :	
Bridgewater,	18
Framingham,	26
Salem,	31
State Normal Art,	44
Westfield,	33
Worcester,	40
Resolutions of pupils of normal school, West Newton,	100
Returns, school, reference of Board to,	9
Abstract of,	i-cxxxiv
Rowe, David S., principal, normal school at Westfield,	116
Rural towns, work in,	235
Russell, E. Harlow, principal, Worcester Normal School,	155
Salem Normal School :	
History of,	143
Admission to, and course of studies for,	147
Crosby, Prof. Alpheus, principal of,	145
Discipline of,	148
Edwards, Richard, principal of,	144
Growth of school,	144
Hagar, D. P., principal of,	145
Libraries, cabinets and laboratories in,	149
Methods of study in,	148

Salem Normal School — *Concluded.*

	PAGE
History of — <i>Concluded.</i>	
Object of school,	146
Pupils, whole number of,	149
Visitors and instructors of,	146
Work done by pupils of,	149
Report of visitors to, for current year,	31
Condition and statistics of school,	31
School committees, election and duties of,	191, 198
Abstract of returns to Board by,	i-cxxxiv
Attendance of, upon Teachers' Institutes,	188, 296
Efforts of, to secure competent teachers,	311
Home talent too much relied on by,	295
Number of, should be limited to three,	300
Replies of, indicating progress in schools,	290
Schools of town, should not be distributed among,	237, 298
Services of, may be paid for under Act of 1888,	193
Superintendent, some advantages over,	239
Supervision by, in Barnstable County,	237
Summary of statistics from returns of,	51
School-houses, amount expended for,	52
New, for normal schools,	10
In Plymouth County,	247
Schools, public and private, reference of Board to,	10
Attendance upon, average per cent. of,	59
Children of all ages, increase of, in ten years,	53
Under 5 years of age and over 15,	54
Membership in schools, increase of, for ten years,	54
Affected by parochial schools,	58
Methods of reckoning differ,	60
Evening schools,	12, 65, lxxviii
Grammar schools, course of study for,	206
Hampden and Worcester counties, progress in,	290
High schools,	12, 64, iv-lxxv
Inspection of, report of G. A. Walton, agent,	233
Laws of 1889 relating to,	346
Mixed schools in Germany,	276
Normal, reference of Board to,	10
History of, in report of Secretary,	83-176
Secretary's reports upon,	215
Visitors' reports on,	17-44
Number of, in State, summary of statistics,	51
Plymouth County, report of G. H. Martin, agent of Board, upon,	247
Private, increase of, deprecated,	11
Progress in Worcester and Hampden counties,	291
Public, importance of,	220
Relations of, to State,	218
Returns of, by school committees,	i-cxxxiv
Special schools, Secretary's report on,	69-82
Superintendence of,	13, 191
Superintendents of schools, advantages of employing,	196, 239
Duties of,	197
Operation of law for district,	194
Qualifications for office of,	196
State aid for,	192
Union of towns for employing,	193
Supervision of, report of Board upon,	13

Schools, public and private, reference of Board to — <i>Concluded.</i>	PAGE
Support of, money expended for,	66
Terms and sessions of, in Germany,	270
Time kept, length of,	65
Towns keeping short time,	65
Truant schools,	12, 217
Secretary of Board, report of,	51-220
Agents of Board, work of,	189
Amount expended for support of schools,	66
Board of Education, appointment of,	89
Course of studies for grammar schools,	206
Evening schools, number of, and attendance upon,	65
High schools, increase of,	64
Massachusetts school fund, income of, for 1889,	82
Normal schools, establishment of, in Massachusetts,	86
First established in France in 1681,	84
History of,	83-176
Purpose of,	215
Physical science, elements of, taught in,	217
Physical training, renewed interest in,	218
School attendance, difference in ways of reckoning,	60
School fund, State, amount and income of,	82
Distribution of, to towns,	viii-lxxvii
Increase of,	83
Schools, length of, per year,	65
Semi-centennial of normal schools, historical sketches incident to,	91-176
Bridgewater,	130
Framingham,	26, 91
Westfield,	113
Smith, Walter, director of art education,	170-172
Special schools, reports of,	69-82
American Asylum for Deaf-mutes,	69
Clarke Institution for Deaf-mutes,	73
Horace Mann School for Deaf-mutes,	76
Perkins Institution for the Blind,	80
State and the schools, relations of,	218
State Normal Art School :	
History of,	169
Course of studies for,	170
Establishment of,	170
Location of, first and final,	171
Origin of,	169
Principals of,	172
Propositions relating to drawing,	175
Results of establishment,	173
Smith, Walter, director of,	170
Students and graduates of,	172
Success of,	175
Teachers, principals and assistants,	172
Visitors to,	172
Visitors to, report of, for 1889,	44
Statistics, abstract of, school committees' returns for 1889,	i-cxxxiv
Counties and towns, alphabetically arranged to show :	
First : (a.) population of towns; (b.) valuation of towns; (c.) public schools, number of; (d.) persons between 5 and 15 years of age; (e.) persons between 8 and 14 years of age; (f.) membership and attendance in schools; (g.) different teachers required, number of; (h.) recapitulation by counties,	ii-lxxiv

Statistics, abstract of, school committees' returns for 1889 — <i>Concluded.</i>	PAGE
Counties and towns, alphabetically arranged to show — <i>Concluded.</i>	
Second: (a.) different teachers employed, number of; (b.) normal graduates employed, number of; (c.) wages of teachers, average per month; (d.) months schools have kept; (e.) high schools, statistics of; (f.) recapitulation by counties,	iv-lxxv
Third: (a.) amount raised by taxes; (b.) supervision by school committees, expense of; (c.) supervision by superintendents; (d.) reports, books and supplies, expense of; (e.) school-houses, building, altering and repairing; (f.) taxes, total amount of, and voluntary contributions; (g.) recapitulation by counties,	vi-lxxvi
Fourth: (a.) local funds, appropriated for schools; (b.) academies and private schools; (c.) school fund, town's share of; (d.) apparatus, portion of fund used for; (e.) recapitulation by counties,	viii-lxxvii
Evening schools, number, attendance and expense of,	lxxviii
Institutions, reformatory, at Lancaster, Monson, Westborough,	lxxix
Graduated tables, first series:	
Appropriations by cities and towns of State, per child,	lxxxix
By counties, per child,	cix
By cities and towns of counties, per child,	xciv-cvii
Graduated tables, second series:	
Attendance, town's rank in State,	cxxiv
Town's rank in county,	cxxviii
County's rank in State,	cxxxiv
Stearns, Rev. Eben S., principal of Framingham Normal School,	102
Studies, arrangement of, in course, by superintendents,	200
Summary of statistics from returns of school committees,	51
Academies, number of,	52
Students in, and tuition paid,	52
Attendance upon school, average of,	51
Books and supplies, expense of,	52
Cities and towns, number of, in State,	51
Contributions, voluntary,	52
Evening schools, numbers in,	52
Funds, State school, amount of,	52
Funds, local, amount of,	52
Expended on public schools,	52
To each child,	52
High schools, number of,	52
Membership of schools,	ii-lxxiv
Number of children over 5 and under 15,	51
Percentage of attendance,	51
Persons in State between 5 and 15 years,	51
Of all ages,	51
Private schools, number of,	52
Pupils in, and tuition of,	52
Public schools, number of,	51
School-houses, amount expended for,	52
School reports, cost of,	52
Supervision of schools, cost of,	52
Support of schools, taxes for,	52
Teachers, number of,	51
Wages of, average,	51
Time, in months, schools have kept,	52
Superintendence, law of 1888 commended,	312
Districts formed for, in 1889,	193, 251, 312
Scheme for uniting towns in Barnstable County,	238

Superintendence, law of 1888 commended — <i>Concluded.</i>	PAGE
Towns voting for,	299, 312
Superintendents, duties of,	197
Necessity for,	191
Proportion of school population under,	68
Qualifications for office of,	196
Supervision of schools,	13, 191, 265, 298, 311, 337
Barnstable County, agent's report upon,	237
Cost of, by school committees, and by superintendents,	vi-lxxxvi
Towns grouped in Barnstable County, to show,	239
Districts formed for, in 1889,	312
Inspectors of schools in Germany,	266
Law of 1888, provisions of,	192
Report of Board upon,	13
Report of Secretary upon,	191
School committee plan, results of,	237
State aid for,	192
Towns united under law of 1873,	194
Union of towns for,	195
Teachers' Institutes, Secretary's report on,	177
Conductors of, in report of,	184
Exercises and instruction in,	186
History of, in Massachusetts,	177
Instruction, subjects of,	179
Instructors, names of,	178
Membership in, for 1889,	184
Moral training in,	182
Organization of,	178
Preparation for teaching in,	183
Special, in 1889, at Newton and Quincy,	187
Towns represented in, list of,	185
Where held, list of,	184
Teachers, number of, in public schools,	60
Barnstable County, report of agent upon,	233
Changes of, frequent in,	236
Drawing teachers' meetings, report of H. T. Bailey, agent of Board,	328
Independence of, in German schools,	267
Inexperienced, in Worcester and Hampden counties,	295
Nomination of, by superintendents,	199
Number of, in State,	60, 62
Number that have attended normal schools,	63
Permanency of, in office, increased in Plymouth County,	249
Scarcity of teachers of ability,	235
Selection and examination of,	310
Special, for drawing, list of, in cities,	319
Summary of statistics of,	51
Tenure of office of,	61
Teaching, characteristics of, in Germany,	278
Methods of, superintendents' duty concerning,	201
Temperance, means for, and results,	309
Text-books, selection of, by superintendents,	201
Few used in German schools,	268
Thomas, Edith M., deaf mute, account of,	82
Tillinghast, Nicholas, principal, Bridgewater Normal School,	131
Transportation of children to school,	68
Treasurer of Board, financial statement of,	222
Truancy in Barnstable County towns,	235

Truant officer may arrest to take to school, without warrant,	346
Truant schools, counties to establish, on petition of three towns,	217
Needed in Barnstable and Worcester counties,	235, 297
Report of Board, reference to,	12
Valuation of towns, counties and State,	ii-lxxvi
Visitors to normal schools,	17-44
Wages of teachers, average of, per month,	51, 62
Walton, George A., agent of Board :	
Report of,	231
Attendance, school, irregularity of,	234
Compulsory, laws for, enforced by State officers,	235
Barnstable County, inspection of schools in,	233
Condition, relative, of,	233
Consolidation of schools in Barnstable County,	240
Concord, abstract of account of, in,	241
County truant schools, need of,	235
District supervision, grouping of towns for,	238
Expense apportioned among towns of a group,	239
Improvement in schools, superficial,	241
Inspection of schools, plan of,	233
Supervision of schools, school committee, plan of,	237
By a superintendent,	237
Advantages of plan,	239
Teachers of ability, scarcity of,	235
Changes infrequent,	236
Professional training, need of,	236
Training of, by superintendents,	237
Truancy in towns,	235
Work in schools, average for rural towns,	235
Walton, Mrs. Electa N. L., history of Lexington Normal School by,	91
Westfield-Barre Normal School :	
History of,	113
Assistant teachers in,	121
Boarding hall for,	128
Building constructed for, in 1846,	116
Course of studies for,	118
Davis, Rev. Emerson, principal of,	115
Dickinson, John W., principal of,	120
Greenough, James C., principal of,	126
Membership, conditions of, established by Board,	117
Model school, usefulness of,	125
Newman, Prof. Samuel P., first principal of,	113
Opposition to normal schools,	114
Re-establishment of school at Westfield,	114
Rowe, David S., principal of,	116
Scott, Joseph G., assistant and principal,	122, 126
Visitors to, official,	126
Wells, Wm. H., principal of,	119
Report of visitors to, for current year,	33
West Newton, removal of Lexington Normal School to,	98
Removal from, to Framingham,	103
Worcester County, and Hampden, schools in, A. W. Edson, agent, report on,	289, 291
Towns visited in,	291
Worcester Normal School, history of,	152
Aims and special features of,	161
Apprenticeship in, plan of,	166
Books, use of, in,	162
Building and grounds of,	154

Worcester Normal School, history of — <i>Concluded.</i>	PAGE
Children, study of, by pupils,	163
Faculty of school,	155
Graduates of,	158
Association of,	160
Test of qualifications of, for graduation,	158
Mother tongue, use of,	162
Origin of,	152
Russell, E. Harlow, principal of,	155
Students, whole number of,	156
Teaching considered an art in,	161
Visitors to,	153
Report of, for current year,	40
Work of agents of Board,	189
Writing in Barnstable County schools, improving,	235

